

MODEL CAR *Science*

DECEMBER 1970

**MORE WILD NEW
CONTESTS!**

*** RADIO CONTROL
MODEL CARS!**

*** SCRATCHBUILDING
TECHNIQUES -
BY PHIL JENSEN**

**IN THIS ISSUE:
MODEL TRUCKS -
BRUTES OF THE MODEL WORLD**



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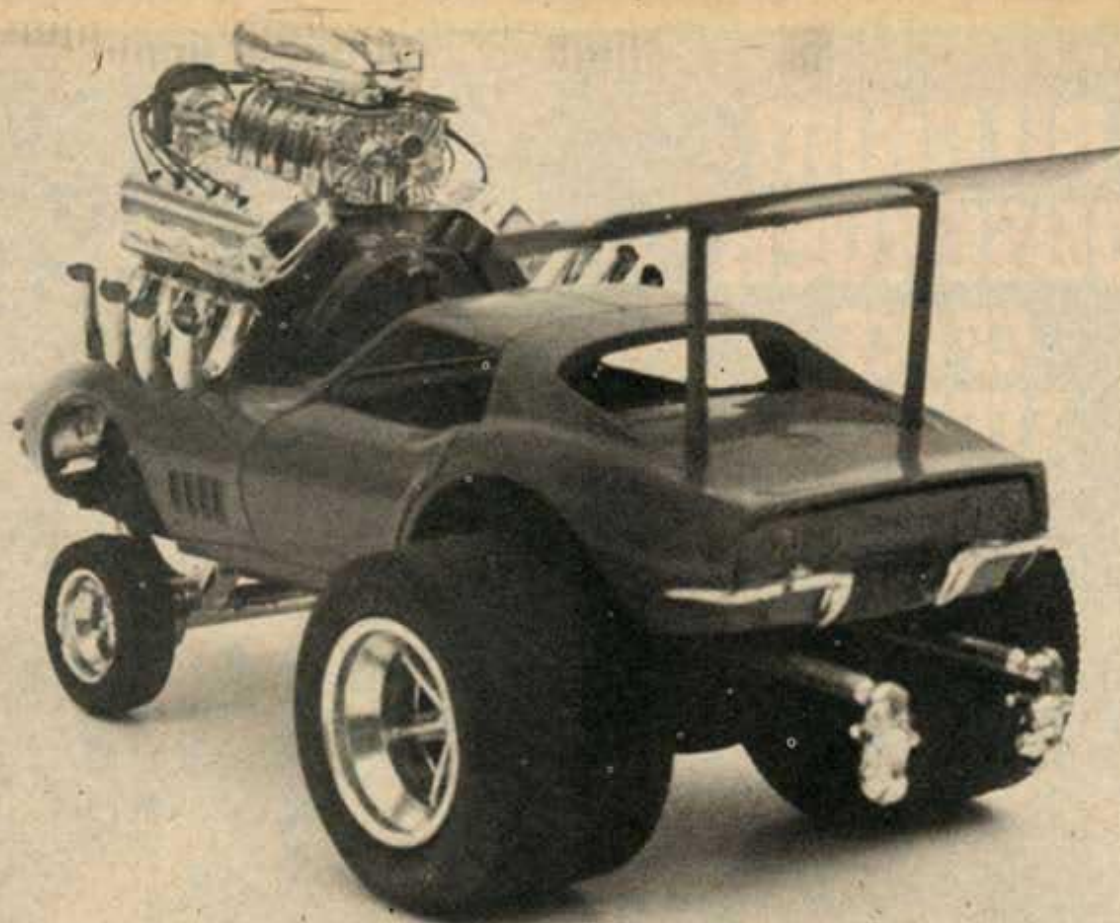
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MODEL CAR *Science*

VOLUME 8, NUMBER 12
DECEMBER, 1970

TABLE OF CONTENTS

TRUCKS	14
Collecting them is a "moving" experience.	
THE BIRTH OF A MODEL	20
How "MATCHBOX" models are made.	
DEAL'S WHEELS	24
B-I-G skins, from Revell!	
THE "BIG D"	28
Millspaugh builds an M8D.	
MPC'S 3RD ANNUAL MODEL CAR CONTEST	33
Let's do it all over again!	
A REAL GASSER	34
Testor's gas-powered Camaro.	
MILL MADNESS	38
How to wire an engine.	
R/C MODS — PART II	41
Phillipe's personal r/c road-racer.	
DESIGN A CAR CONTEST	46
Here's your big chance to be a designer!	
TYCO TRICKS	48
Make that TycoPro handle!	
TRIPLE YOUR PLEASURE	50
Topic? Tanks!	

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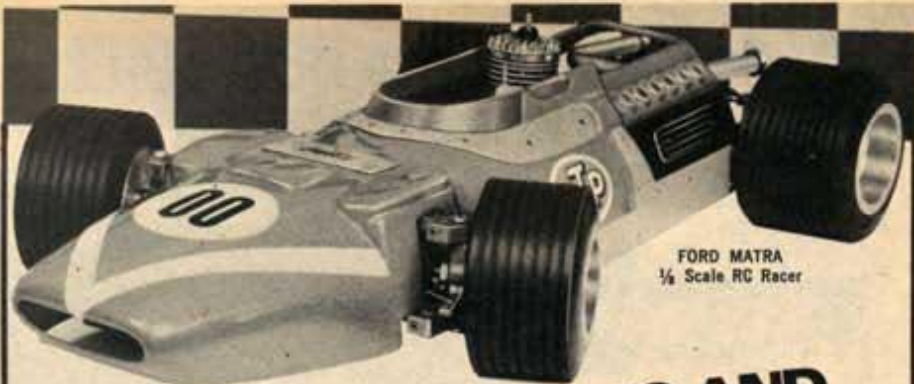
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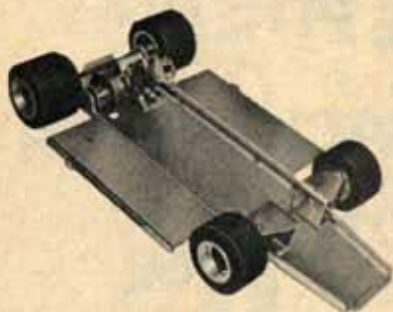
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SMALL STUFF

Address correspondence to: Bill Von Staden, 77 Sherman Avenue, Jersey City, N.J. 07307.

OK, it's the December issue. Christmas is near and it's the time to be merry and cheerful.

I'm not.

Don't get me wrong, I have nothing against Christmas, but things haven't been going too well lately. In the October issue, there is an interesting question raised in the Q&A column. Namely, what ohmage controller do you use with a TycoPro? Now, before I get into this, you must understand two things: there is no hard and fast rule on which controller to use with a given car, and that the ohmage of the controller has no effect on the top speed of the car. If we were to use a 25 ohm controller to drive, say, a stock Aurora car, when the trigger is barely depressed, the motor will be near the top of the rpm scale. We won't be able to maintain a slow speed unless we "blip" the controller. It is like driving with an on-off switch. In contrast, if we take an 85 ohm controller and try to drive a car with a hot rewind (like 195 turns of No. 36 wire on an Aurora car), the car won't begin to move until the trigger is almost fully depressed, and then it will move slowly. Naturally, when the trigger is fully depressed, the car takes off. So, here we have either a very slow speed or a very fast speed, but nothing in between.

That's the story on the car-controller relationship. But, there are many other factors that enter the picture when we talk about racing the car. Here I will only mention three major ones. First, the track. It should be obvious that if we are racing on a small, twisty course we will need a controller that will let us drive slowly. A long open track with no curves of a small radius will allow us to use a lower ohmage controller since we have no need to go slow.

The next factor is the car's handling qualities. A car that can really be pushed hard without deslotting, will allow the driver to utilize a low ohmage controller. The car will be able to handle the punch of a "fast" controller and lap-times will benefit.

The last major factor is probably the most important. It is the human element: the ability of the driver. This will be the overriding factor in all cases. The ohmage of the controller should be comfortable to him. An

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SMALL STUFF

experienced driver can drive with a controller that would seem like an on-off switch to a novice. The controller would give a lot of punch, sure, but the pro knows where to punch it to maintain control.

Here's something that is not generally known. Even though the TycoPro has greater straightaway speed than the Aurora Tuff One, it has a "colder" armature than the Tuff one. The difference in speed here is due to the TycoPro having a more efficient power train. (The TycoPro has two gears to the Tuff One's five.) So even though the TycoPro is faster, it DOES need a higher ohmage controller. I like to use a controller with about 85 ohms of resistance. (MRC, Parma and Aurora all have controllers that fill the bill.) The high ohmage of the controller gives me added control in slow corners. With the same stock TycoPro on a high speed track, I might go to 60 ohms. By adding better tires, a brass pan and a longer drop arm, the handling is greatly improved. With these modifications, I would use a 60 ohm controller on a small track, and 45 on a large, open one.

All this deals with the stock Tyco motor. If we had a car with the Mura rewind, it would be a different story. With this arm, you'd start with 45 ohms and work your way down from there. End of controller discussion.

New topic - the NCC-HOPRA situation. I'm still upset. As you know, HO classes were discussed at the NCC convention this year. They have set up two classes. Briefly, the "production" class will allow the rear axle, wheels and tires to be changed. Cost of the car in this class must be held to \$5.00. While the maximum width will be 1-1/4", no maximum tire diameter or width will be in effect.

The "modified production" class allows anything but scratchbuilds, and has a cost limit of \$10.00. Except for the lack of tire rules, I can buy this. There is no open class, which surprises me, but the NCC has decided to allow HOPRA cover that. This, too, more or less made sense.

Then I found out what HOPRA had planned. Are you ready, HO racers? I mean are you *ready*? Maximum car width will be 1-5/16 inches! That's a 1/16" increase. Maximum tire width is 5/16", so that's up 1/16", too. USAC bodies can now be a full inch wide. This is up from 7/8", which was up from 3/4" until they decided they didn't like the Aurora Formula 1 car.

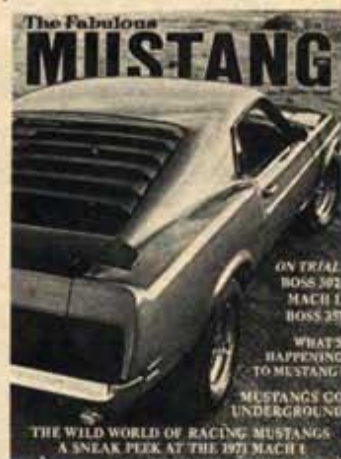
Now, how about it HO fans? You say your club used to follow HOPRA rules, and that you really liked the rules? Too bad. Now if you follow their rules, you won't be an HO club

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Oh, but I'm supposed to tell you that this is what the organization voted for, that this is not just the work of just one or two individuals. Fine. If this is what the whole organization voted for, they must not like "normal" HO rules. What these people are saying is that they don't want any restrictions. Why do you need talent and/or skill at making a car handle? Just shove the tires out a few inches and go. Are the members of this group afraid they can't go fast enough with rules imposed on them like the ones everyone else in the country is running? There is no standard set of rules for HO, but the 1-1/4" maximum width rule is universal. (What do you call HOCCI rules, Bill? — Ed.) Can't these racers work within the confines of such rules? Well, boys, do what you please, but do me a favor — don't call it HO (I agree — Ed.). It's not HO anymore, and it gets further away with each rules meeting you hold. You say this is the progression of the sport. Now I ask you, *what* sport?

While I'm on un-HO scale items, let me mention some of the latest releases from Kirby. He has seen fit to produce the BRM 154 Can-Am, and the Porsche 917 Coupe I've been crying for. But each is available in two widths, standard (1-1/8") and wide, (1-1/4"). The bodies, in either width, are beautiful. The Porsche is my favorite clear body; I wouldn't have asked for it if I didn't like it. The BRM is accurate and well detailed. I'm sure it will be a favorite with the Can-Am buffs. But why the wide bodies? The standard bodies fit over every brand of HO chassis, including the Cobramite. By the way, the new bodies in either size sell for the usual excellent Kirby price of \$.29.

I must apologize to Lancer for the treatment given them in the October *Small Stuff*. The four pre-trimmed Detroit bodies they offer are not all that bad. They are slightly more aerodynamic than they should be, but they are accurate for the most part. The notable exception to this is the Challenger. It has way too much front end overhang, and too big a spoiler. It doesn't look too much like anything Dodge ever made. The Firebird, the Torino and the Superbird are all OK.

Now the Can-Am bodies. The McLaren, the Ferrari 612, and the Lola T-163 are all beautiful bodies. The Autocoast Ti-22 doesn't look at all like the real thing. It has bubbles where there should be scoops, and looks more like the BRM 154 than the real Autocoast. Now the record is

Continued on Page 57



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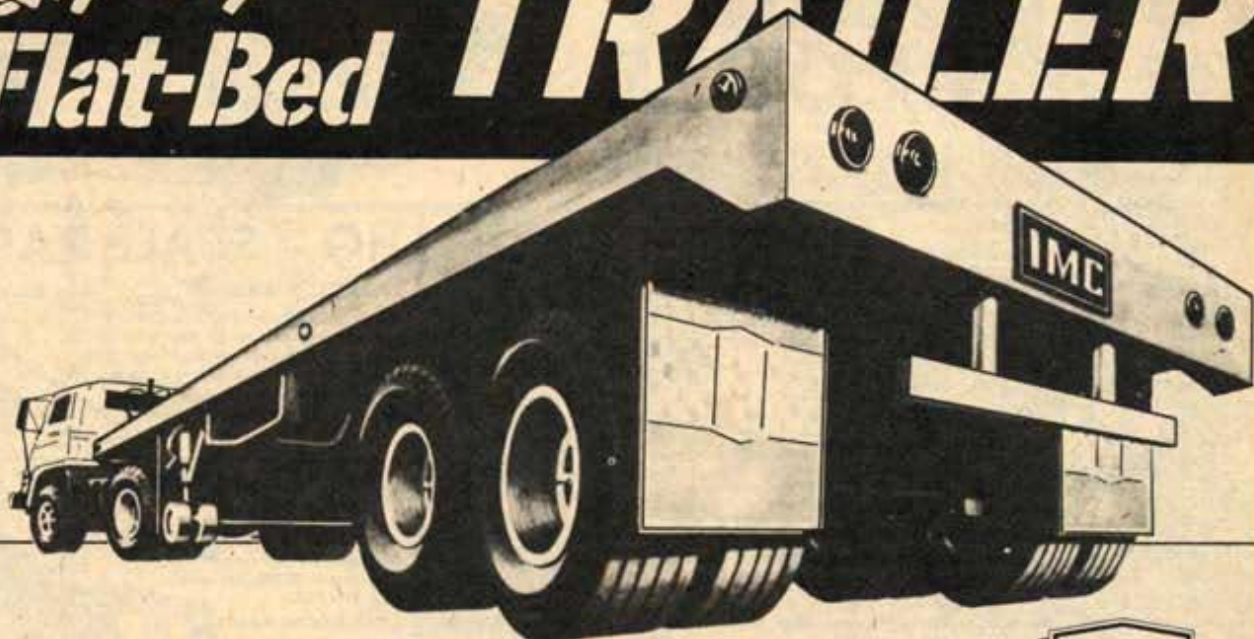
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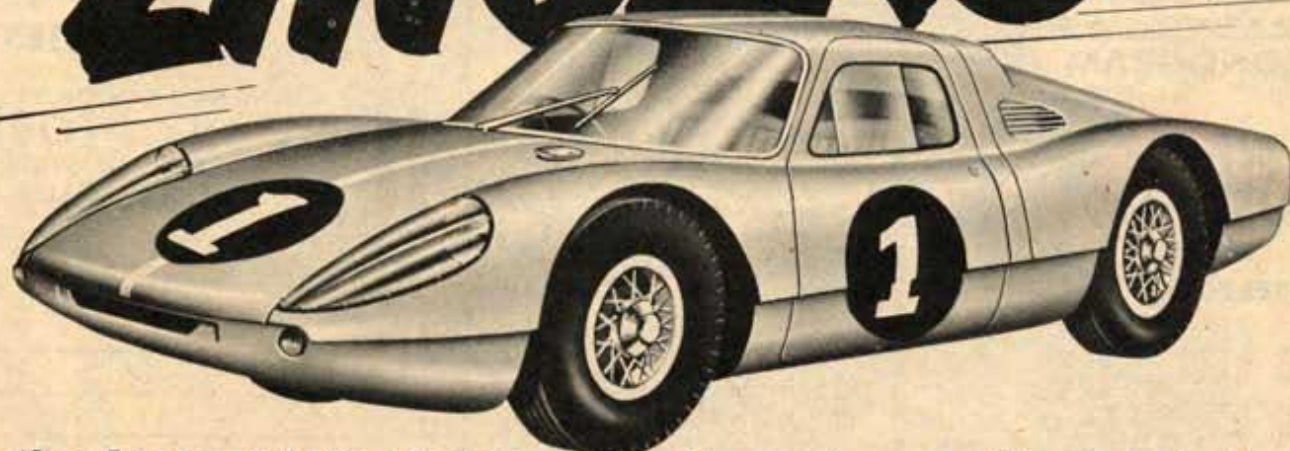
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TRUCKS...

...They're more fun than any other type of model, over the long haul!

By Phil Jensen

MANY COLLECTORS, WHEN ASKED if they have any die-cast trucks, will shrug and say, "Oh, I have a couple, but I don't really collect 'em." I find this attitude hard to understand. Some of the finest examples of the die-caster's art are to be found among commercial-vehicle models. Moreover, that hefty, solid feel so prized by miniatures enthusiasts is nowhere more evident than in trucks — especially those in the larger scales.

It's quite true that most die-cast "commercials" lack some of the amenities present in cars from the same manufacturers. Less attention generally is paid to cab interiors, engine details, hinged doors and such, but working external features — operating dump bodies, for example — help to make up for this.

Consider Dinky Supertoy No. 965, a GMC "Terex" off-highway, heavy-duty dump truck. This model lacks cab interior and engine detail, but the (admittedly out-of-scale) crank handle on the side operates a fascinating rack-and-pinion/wedge mechanism to elevate the body. Comparison of the Dinky system with that of Marklin's 8036 Kaeble "Hinterkipper" (Hinter = rear, kipper = tipper = dump truck) is interesting. In the latter, a lever pivoted to the frame is moved horizontally to stretch a spring which, in turn, raises the dump body.

A third type of actuator is seen on Ertl's big International "Pay Hauler." The body is pushed down manually until it locks. When the trip-lever on the side is released, an oil-damped spring operating inside a cylinder provides the action.

Lesney's "MATCHBOX" system is strictly hand-operated, but embodies a unique combination of metal and plastic for hydraulic piston and cylinder, respectively. The friction between these two elements is just sufficient to hold the dump-body (or other moving part) in "up" or "down" position. This appears not only in "King-Size" K-1, a Foden eight-wheel truck, and K-19 Scammel rear-tipper, but in many other "MATCHBOX" regular and "King-Size" items as well.

Tekno is somewhat more generous with details. Both of the Scania-Vabis (Swedish prototype) models shown have cab interiors, including a proper adjustable-type driver's seat, bench-style passenger seat, detailed dash, and steering wheel. All axles are suspended on coil-springs. The "Interconsult" dry-cargo truck has an additional feature. The two spherical tanks may be loaded with sand or similar dry material; then, by pressing the "pushbuttons" on the tops, a spring-loaded valve opens and the "cargo" will flow out. I suppose this model might be used as a unique combined salt and pepper shaker, if one wished!

The new Volvo FB-88 by Tekno is even more highly detailed. Cab doors operate, the cab tilts (as on the prototype) for engine service, and a sliding button at the rear raises the "tag" axle for running light. Interior features a "dog-house" engine cover as well as seats, dash and controls. Front-axle steering is provided which, unlike some systems, pivots when the truck is leaned away from, rather

than into, a curve. This Volvo is quite similar to American heavy highway diesels: the model comes with a four-wheel trailer and is probably the finest miniature commercial vehicle on the market today.

Automobile transporters are quite a popular item in the die-cast truck field. The Lesney's "MATCHBOX" "Major Pack" M-8 (since replaced by "King-Size" K-8, just reissued in a new form as K-11) is typical, but Tekno, Mercury, Norev, Corgi (and Dinky, I believe) each produces an equivalent model. Garbage trucks are a more prosaic subject, but Lesney, Norev, and Tekno include them in their lines and there may be others.

Transporters of another type are typified by "MATCHBOX" "Major Pack" M-6 (renumbered K-5 in current versions). Unlike most Lesney "commercials," this racing-car transporter has a nicely detailed cab. A split-level arrangement inside the van body permits two "MATCHBOX" GP or sports-racing cars to be carried; the one on the upper "deck" can be seen through the transparent plastic roof-panel.

A large sub-class in the commercial vehicle scene is represented in the accompanying illustrations by Lesney's K-3 Hatra tractor shovel and K-2 K-W Dart articulated dump-truck. Construction equipment in miniature is fascinating, and is the exclusive subject of at least one collector's extensive display. Bulldozers, steam-shovels, cranes, and various other machines are available in the various "MATCHBOX" lines, and Tekno, Marklin and Norev each make some items. I have often thought that an attractive diorama could be made, showing a highway construction scene and featuring an assortment of suitable models.

Farm equipment also seem popular among die-cast makers. In England, Britains Models (like Ertl in America) is especially active in the field, with an extensive line of tractors and implements. A brand-new agricultural item, just released, is new "MATCHBOX" "King-Size" K-3, a Massey-Ferguson tractor with all-weather cab and dump trailer. This has a brand new counterpart in the Ertl line, as shown. Tekno produces a farm tractor and wagon; Corgi also has several numbers of this type, plus an intricate Massey-Ferguson combine harvester. Marklin makes a single farm-type tractor.

The glamour of fire-engines extends to models; again, Lesney, Tekno, Marklin, Norev, and Corgi all produce one or more. By far the most spectacular is Corgi's American-LaFrance aerial ladder truck. As a matter of fact, major emphasis seems to be on ladder-trucks, although Tekno offers a VW van with two hose reels. "MATCHBOX" K-15, a British Merryweather unit, is a fine example of the typical die-cast miniature fire-fighter.

Public-transit vehicles certainly deserve a place in any collection of "commercials." They are, however, a *rara avis* among die-casts. Tekno makes a beautiful Scania city-type bus; Norev does the same for Saviem. The small "MATCHBOX" series has always included a number of buses but, to the best of my knowledge, there has never been a bus in the "King-Size" or "Major-Pack" series. In the early days of the "Models of Yesteryear," Lesney produced a fine model of a London double-decker bus, circa 1914, but this was dropped. Rio's Fiat 1915 "Autobus" seems to be the sole antique bus now available, and a charming one it is, with its rows of seats inside and curtains at the windows.

A most unusual specimen is the Dinky "Supertoys"



Dinky GMC "Terex" off-highway dump truck features fascinating rack-and-pinion tilt body mechanism.



Coil spring tensioned by lever lifts dump body of Marklin's Kaeble Hinter-kipper.



International "Pay Hauler" is big Ertl model equipped with hydraulic dump cylinder.



"King-Size" K-19 Scammel tipper (left) and K-1 Foden eight-wheel dump both use manual Lesney tilt system with realistic appearance.



Tekno 434 Scania-Vabis "Shell" tanker has detailed cab, colorful paint-job. No. 406 "Shell" VW pickup at left is companion model.



"Interconsult" dry-cargo carrier is Tekno 453 Scania-Vabis with pushbutton valves for emptying spherical tanks.

TRUCKS

Wayne School bus illustrated. Insofar as I know, only a few of these were made and production was suspended after a short time. It's a good, if not spectacular model, with windows all around, silk-screen lettering that's a bit less than perfect, red plastic seats, and only a seat and steering wheel at the driver's position.

Antique trucks are definitely neglected. Again, the "Models of Yesteryear" included several at first, but these were replaced by more plebian vintage vehicles. The Ziss 1926 Henschel "Aral" tanker and a similar rack-body model are available, but have no counterparts in other makers' lineups.

I've included two photos of some elementary but interesting die-cast models you may have overlooked. These are current production Tootsie toys, ranging from highway tractor-trailer rigs to fire engines and construction trucks. A little touch-up painting works wonders on these: detailing and proportions are remarkably good.

Truck models are often used as advertising novelties and, as such, can form a special sub-class within a larger collection. The Winross line is typical and best known, but there are others such as Raltoy, whose "Bekins Van Lines" rig is a primitive but colorful "giveaway."

The final item isn't really a "collector's piece," but I've included a photo of it to set the record straight. In *Miniature Car Collector*, Volume I, Number 3, Brick Price mentioned that "A member of IAAM once converted Monogram's Mod Beer Wagon into a Mack panel truck." Well, I'm the guilty party but, as you can see, it's a stake-body, not a panel! Wheels and some other parts came from the extinct Premier 1907 Mack truck kit.

The publication mentioned above (*Miniature Car Collector*) is a monthly newspaper devoted to serious modelers and collectors of die-cast cars and trucks, classic cars, and military vehicles. It's packed with information on collecting and modeling in the automotive and military field, and should be on your "must" list. Makes quite a Christmas present, too. The price is \$6.00 per year, and it's available from Pacific Publishing Group, P.O. Box 1821, Thousand Oaks, Calif. 91360. Foreign subscriptions are \$7.00 per year, for surface mail (airmail service not offered).

If trucks are your bag, you'll surely get "hooked" if you begin delving into the die-cast field, for there you will find trucks, trucks, and more trucks!



Volvo FB88 heavy diesel and matching trailer is made by Tekno, equals the best die-cast model cars for interior and chassis detail.



Cab tilts, doors open, cargo canopy is removable, and tag axle locks in up position on this excellent Volvo FB88 miniature.

Fascination of construction equipment is portrayed by K-2 K-W Dart Dump Truck and K-3 Hatra Tractor Shovel (right).





Popular subject for die-cast trucks is car transporters, typified by "Major Pack" M-8, shown here with a load of Tootsietoy autos.



Racing-car transporter is Lesney M-6; GT parked alongside is new "MATCHBOX" series No. 68, Porsche 910.



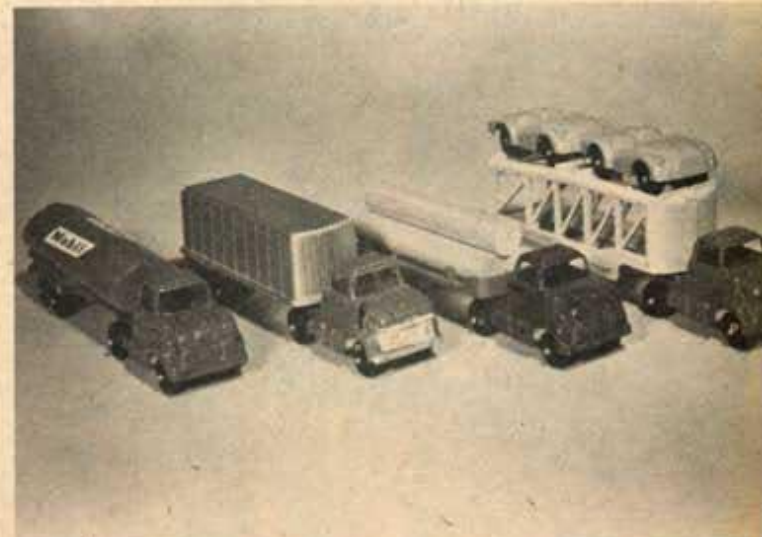
Quaint Henschel tanker by Ziss dates from about 1926 in Germany, has solid tires and chain drive and brass trimmings.



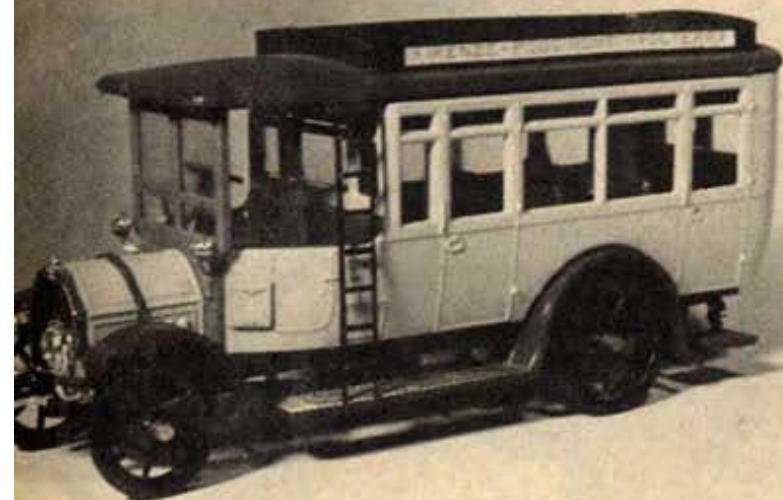
Garbage trucks come in wide variety, such as this SD British model from the "King-Size" line.



A startling contrast in scales: 1/16 Ertl and Lesney's "King Size" versions of Massey-Ferguson tractors with "all-weather" cabs.



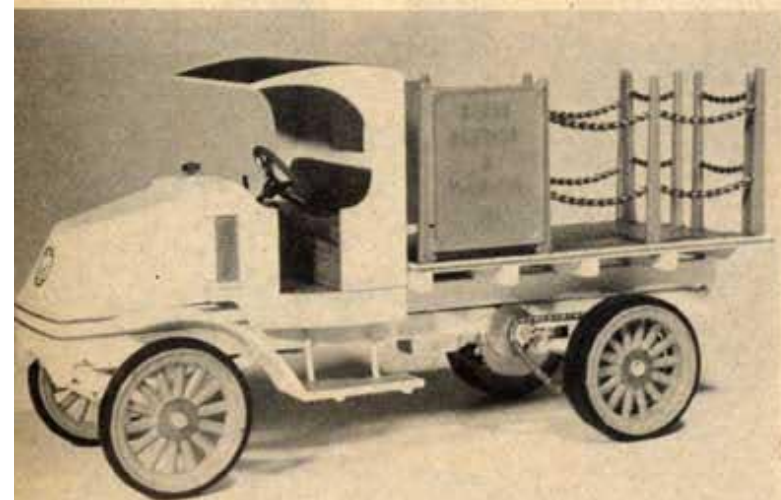
Tootsietoy highway rigs all feature Ford N-type tractor; second model from left has been detail-painted to improve appearance.



"Merryweather" fire engine K-15 has working extension ladder on turntable.



Bekins Van Lines distributes these Raltoy models as advertising novelties. Models are elemental with little detail, but are interesting additions to any collection.



Mack 1923 Bulldog stake truck fabricated from Monogram "Beer Wagon" and Premiere Mack kits – The greatest antique truck of them all!

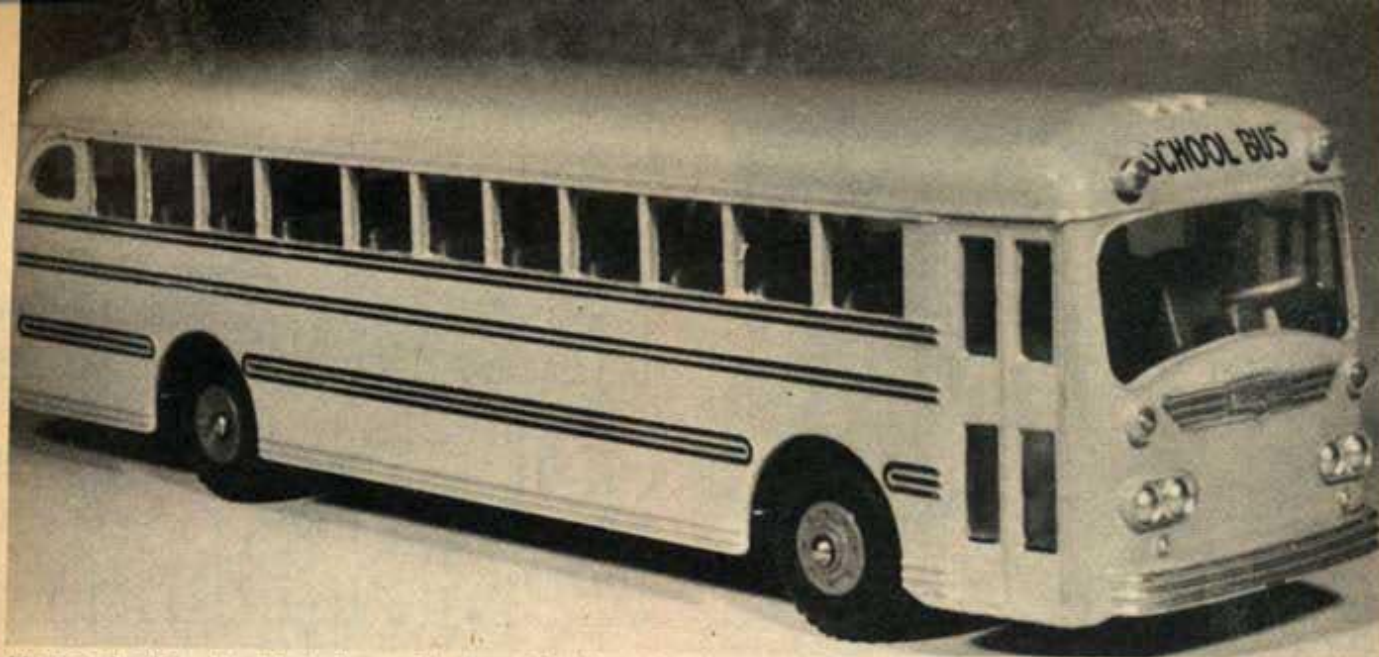
18/Model Car Science



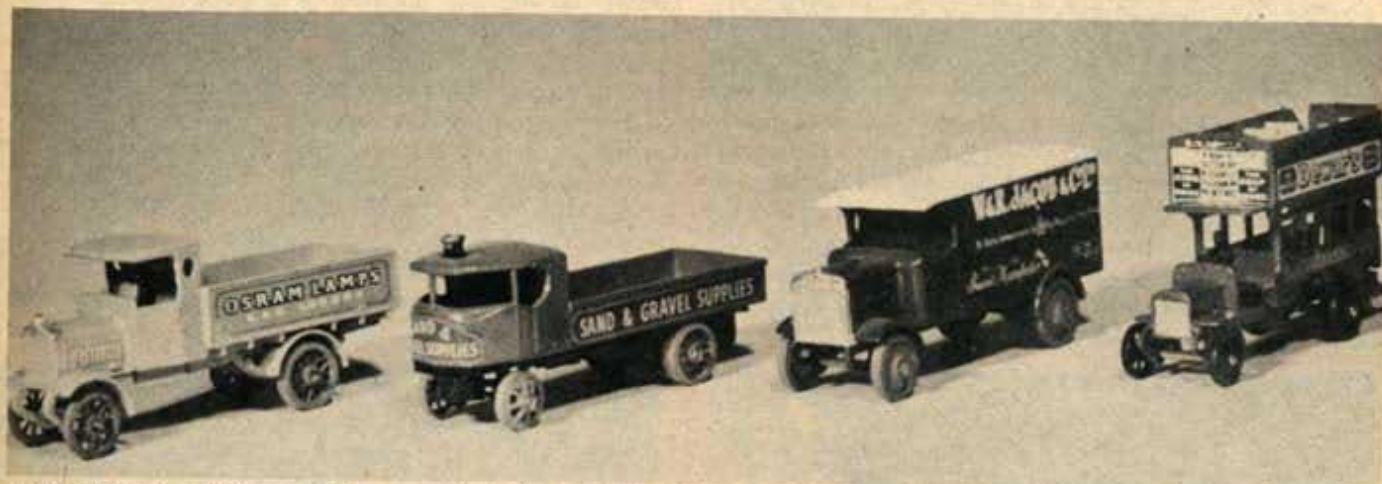
Rio's Fiat "Autobus" conjours up visions of narrow mountain roads on the Italian "Boot," is sole antique bus model available.



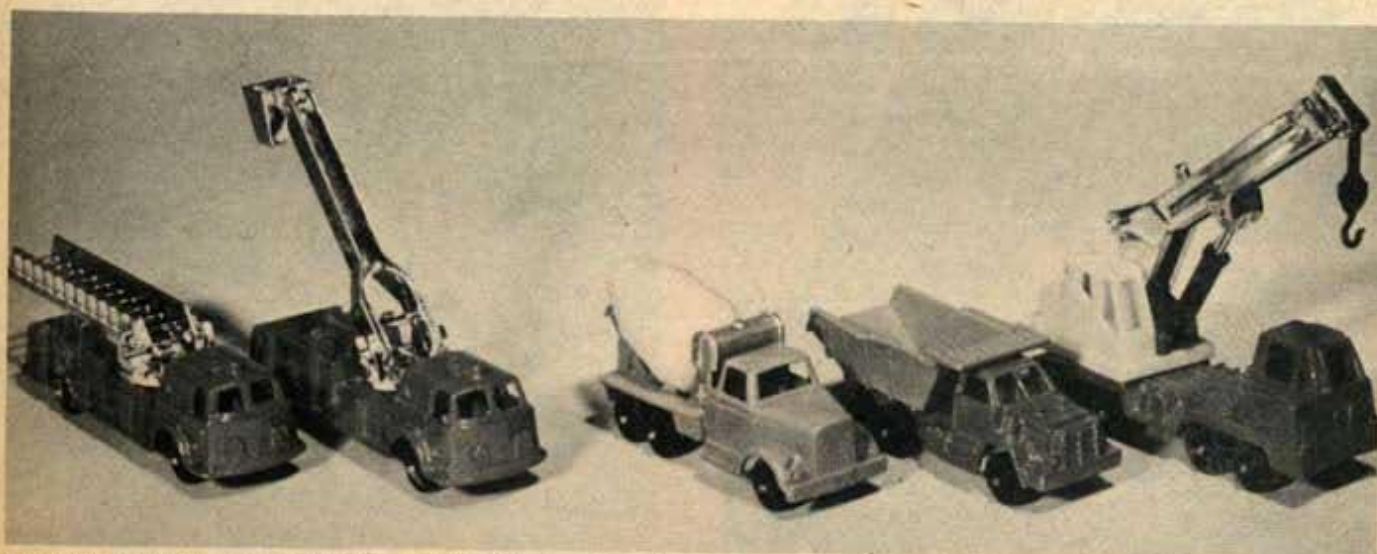
Marklin 8034 Krupp Lastwagen "Front Lenker" – a simple model of a typical German medium-duty cargo truck.



Wayne school bus by Dinky is a realistic model although detailing is minimum.



Early "Models of Yesteryear" commercials: left to right, No. 6 AEC Y-type Lorry; No. 4 Sentinel 1928 Steam Wagon; No. 7 Four-ton Leyland van, circa 1920; No. 2 B-Type bus of about 1910. What a pity these fine little antiques were discontinued!



Tootsietoy ladder-truck and "cherry picker" fire engines at left appear to be American-LaFrance models; at right are transit-mix concrete truck, Euclid dump, half-cab crane truck with working "big hook."



The life of a new model begins at a design meeting attended by senior Lesney executives. The suitability of a particular vehicle is discussed and the manufacturer of the full-size car is approached for photographs, drawings and other information. Once the design is accepted and detailed measurements are made, many hours of careful work takes place in the drawing office. Here all stages of the actual model design for "MATCHBOX" toys are carried out.



In the pattern shop, highly specialized craftsmen carve large wooden models which form the basic shape from which the "MATCHBOX" model will eventually be die-cast in the millions.

20/Model Car Science

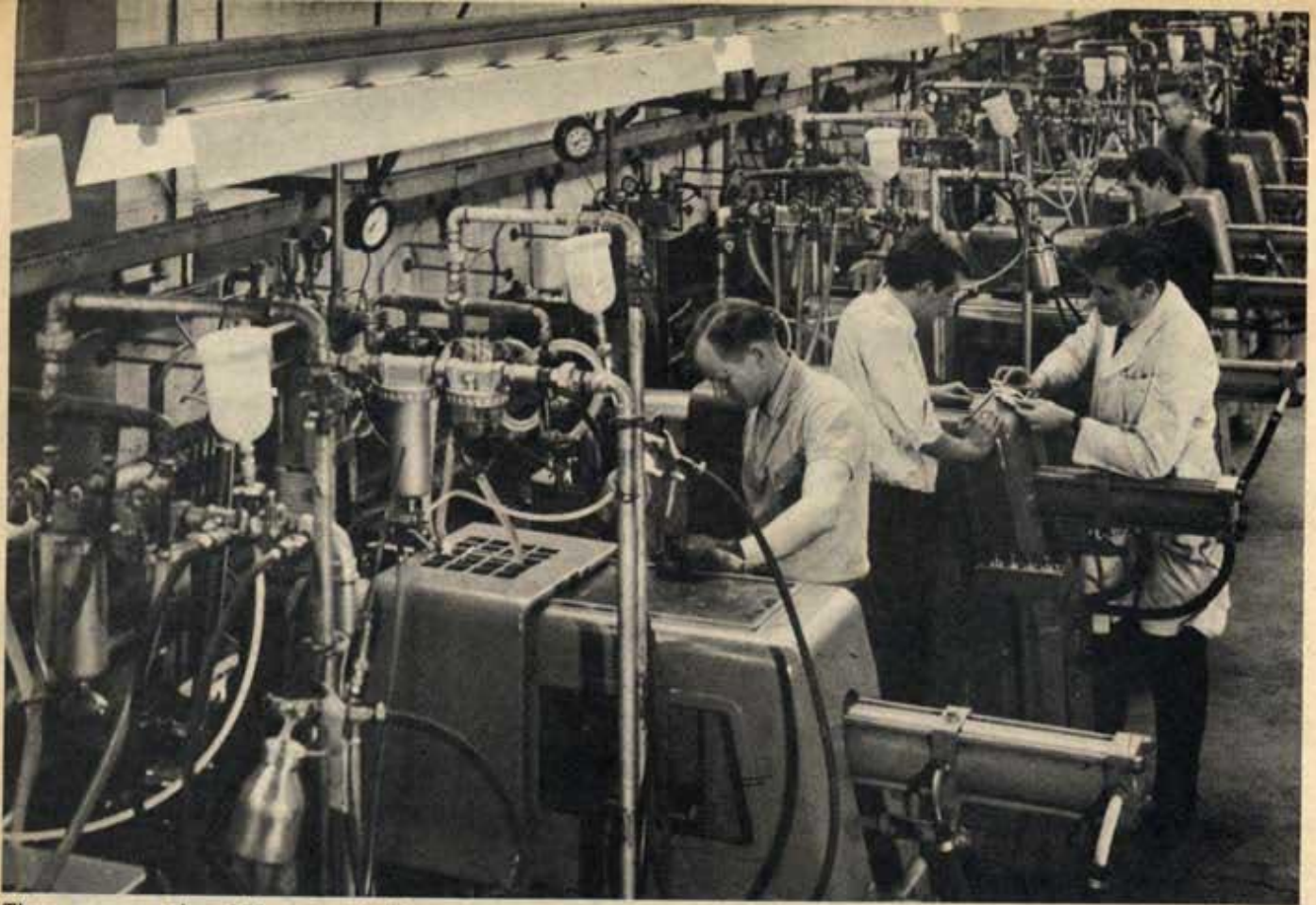
How "MATCHBOX" models are made.

THE BIRTH OF A MODEL

In 1953, two young businessmen, John W. Odell and Leslie C. Smith, created the world of "MATCHBOX" miniatures with the reproduction of the Coronation Coach used by Queen Elizabeth II. The success of the coach encouraged Mr. Smith and Mr. Odell to make other high-quality models. These, too, were quickly bought up and brought many more requests for new models to be added to the line. The production of these first "MATCHBOX" models took place in a bombed-out London pub, "The Rifleman." The production of "MATCHBOX" models has now grown to 1-1/2 million models each day! The following photos tell the story of how "MATCHBOX" models are made, from their inception right through the final packaging.

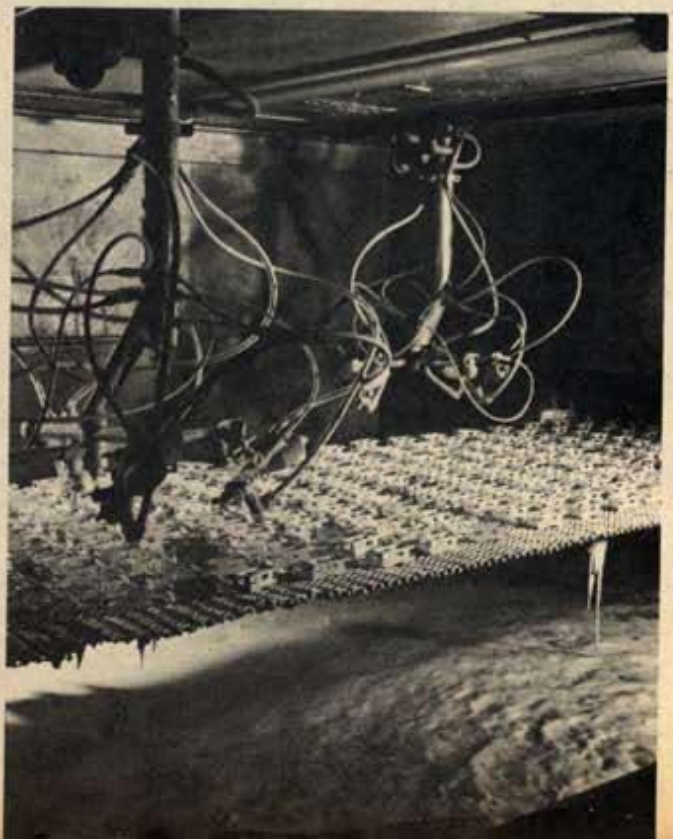
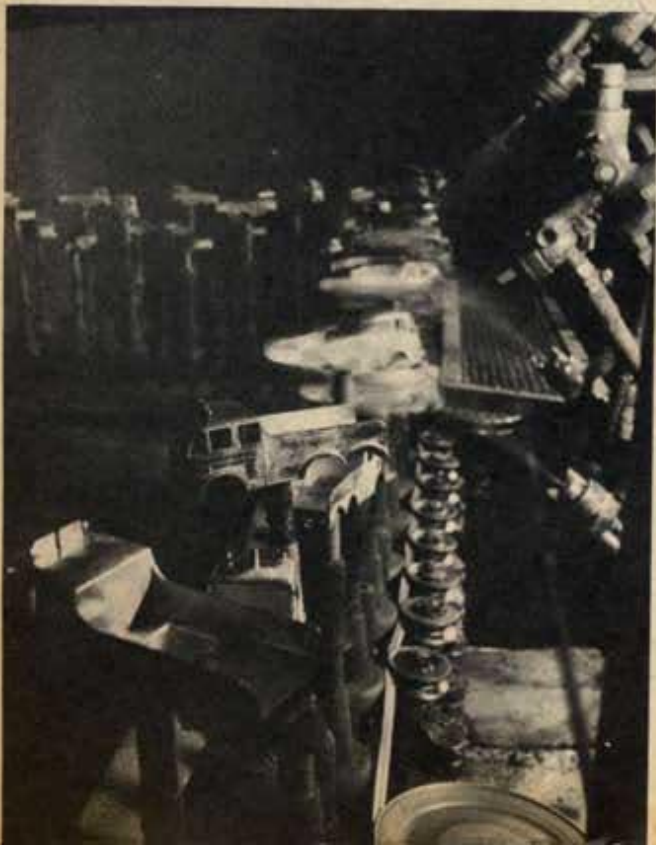


The fine details of all "MATCHBOX" models are made possible by the over 160 tool makers that construct the molds. These molds are made from the finest grade of chrome vanadium steel. When the molds are completed, full-scale production of "MATCHBOX" models will begin.



There are more than 150 automatic die-casting machines at Hackney, London and all have been designed, built and installed by Lesney engineers. The process of die-casting is a way in which melted metal is forced into the mold. When the metal (in this case, zinc) hardens, it is removed from, yet keeps the shape of, the mold. Even at a temperature of over 800 degree fahrenheit, the finely engraved details on the model are clearly visible. The daily output of the fully automatic machines can exceed 10,000 "MATCHBOX" car bodies.

After the raw form is taken from the mold, the "MATCH-BOX" model is ready for a fully automatic paint spray. These machines give each "MATCHBOX" miniature a complete coating of lead-free paint, which is then oven baked for maximum strength and quality finish. The spray shop uses nearly 2,000 gallons of lead-free paint every week and over 2-1/2 million models can be stove enameled every week.



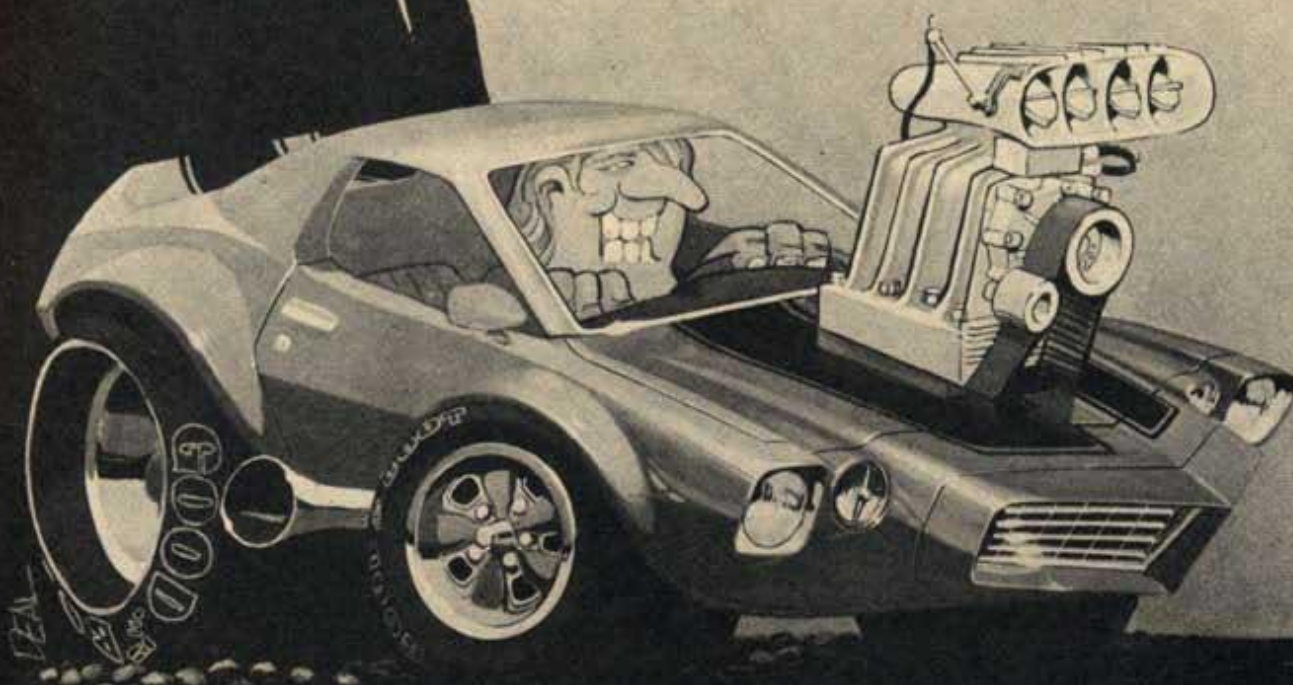


Before final assembly can take place, construction of plastic moldings must be completed. High quality precision plastic moldings play an important part in giving "MATCHBOX" models their unique and unequalled fine finish. All the machines in the plastic department at Lesney produce seats, windows, interiors, wheels and other tiny fittings.



Final assembly takes place in London, where over 2,000 women assemble detailed components and give life to "MATCHBOX" series models. Automatic packing machines take the weekly output of over a million "MATCHBOX" models at the rate of almost three per second. These machines are inter-connected with automatic handling systems to the shipping departments in the huge "MATCHBOX" toy factories in Hackney, London. The production of "MATCHBOX" models has come a long way since its beginning. Today "MATCHBOX" models reach 130 countries around the world. John Odell and Leslie Smith started the famous Lesney "MATCHBOX" models company almost twenty years ago with a few hundred pounds War Gratuities. Today, they are multi-millionaires and pre-eminent figures in the world of toy trade.





DEAL'S WHEELS

By
Robert
Schleicher

The ultimate in tremendous tires — from Revell.

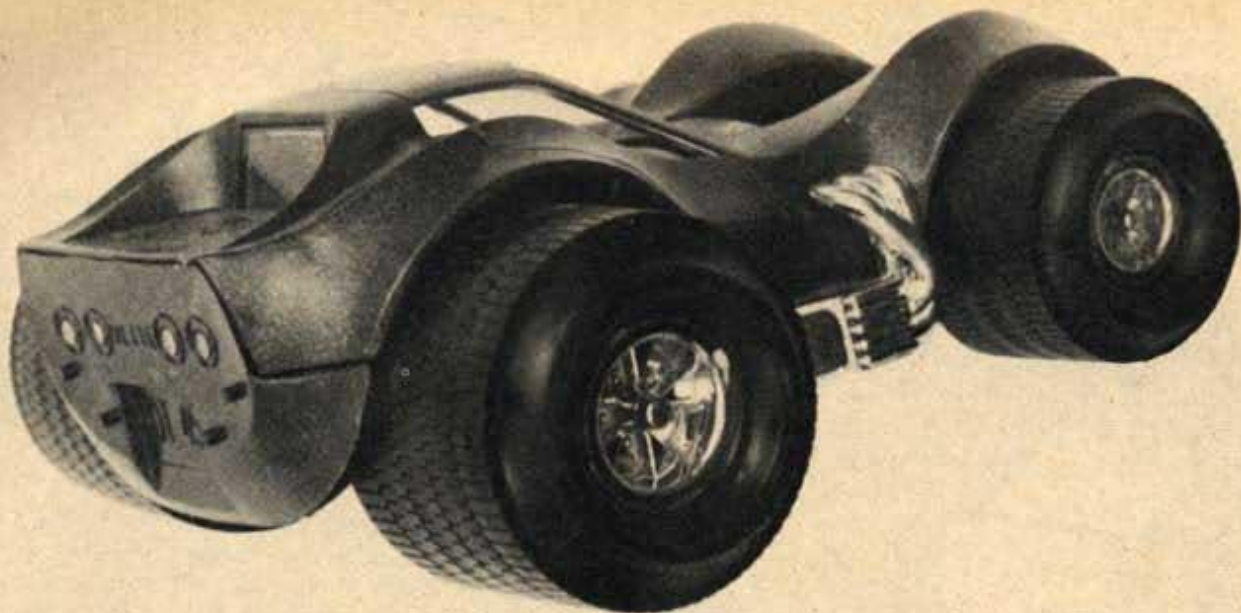
You'll look at the photos of the wheels and tires included in the new Revell "Deal's Wheels" kit and think we've taken one too many trips, but we think there's a better-than-ever chance that the show cars of the future (and the street cars after them) will have just such giant "skins." Take a look at some hot rod magazine of the 1960 era and tell us, from the 1960 trend in tires, that you'd see the giant "60" series slicks that are now factory stock on the Super Cars. Further, know that, between the Federal Government and the insurance companies' rulings, the day of the factory street racer "performance" cars is limited indeed.

Cars of the Seventies will look a whole lot quicker than they really are — witness that Maverick "Grabber" with its Super Car paint and peanut-size mill — there's more look-but-not-go to come, and no special paint striping job will make a car look as quick as a set of these Deal-type super "skins" will.

Revell's new series of 1/25 scale "Deal's Wheels" cars can only be described as caricatures. Their designer, Dave Deal, is a cartoonist of some note in the full-size car field, with his characteristic caricatures appearing in most of the Meyer's Manx and MG Mitten ads for nearly a decade. The Revell kits are the first time, though, that Dave's designs have appeared in three-dimensions. We do expect them to start a trend among full-size car customizers that could very

well lead to one of the tire companies offering Deal-size tires in real life. There are four of these "Deal's Wheels" kits on your dealer's shelves right now: the "Bug Bomb" Volkswagen, the "Glitter Bug" dune buggy, the "ZZZZZZZZ-28" Camaro and the "Stink Ray" Corvette. Each kit abounds with parts you can use to customize any 1/25 scale car in your collection — the radio mast on the "Glitter Bug," or its "stinger" exhaust, or the side-flank exhaust pipes of the 'Vette, or "ZZZZZZZZ-28's" oversize blower, or the "Bug Bomb's" stylish tachometer, or those terrific tires and wheels . . .

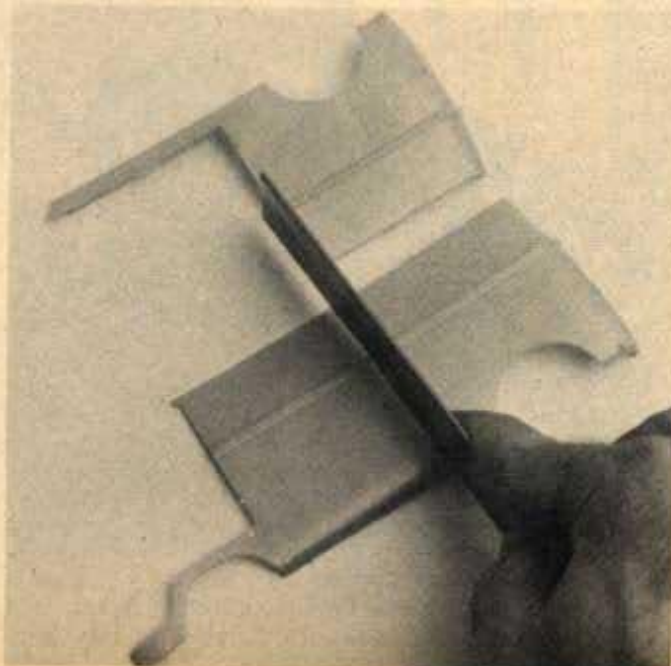
Each of the cars in the Revell "Deal's Wheels" series features a similar but smaller super-wide "Good Boot" front tire. The three "street" cars have similar super-wide rear "Good Boot" slicks, with the rounder "High Blotation" rears on the "Glitter Bug" dune buggy. The 'Vette features vented wheels with the ribbed Stingray-style hub centers. The Camaro has the popular mag-style wheels used on most full-size show cars. The dune buggy has styled steel wheels much like those sold by Empi for full-size cars. The "Bug Bomb" VW has Dave Deal's own idea in mag wheel styling. In all, you have a choice of four different wheel styles and three different tire types among the four "Deal's Wheels" kits. Each of the Revell wheels has the same intricate detailing you'd expect from a scale model. The tires, of course, are two-piece hollow moldings with full tread and sidewall detail.

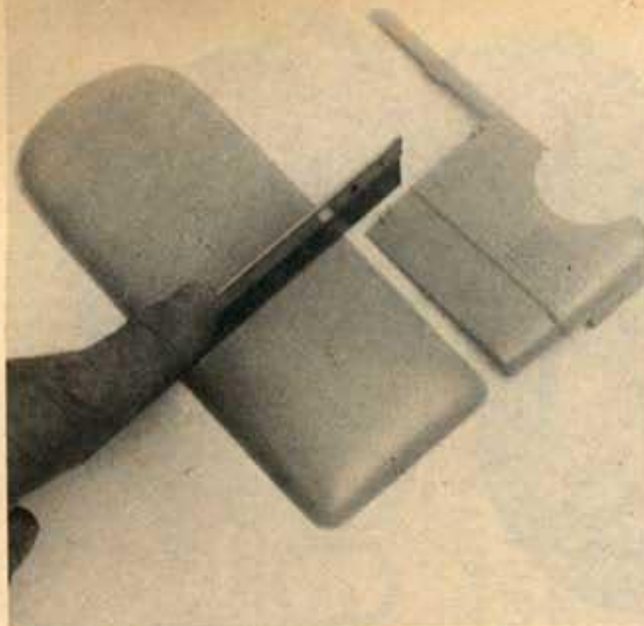


No longer need you ask for larger tires in model kits. They can't come much bigger than those in the caricature cars of the Revell 1/25 scale "Deal's Wheels" series. The Revell "Deal's Wheels" dune buggy, the "Glitter Bug," has these high floatation rear tires (dubbed "High Blotation" on each sidewall). Each tire is a hollow, two-piece, molding.

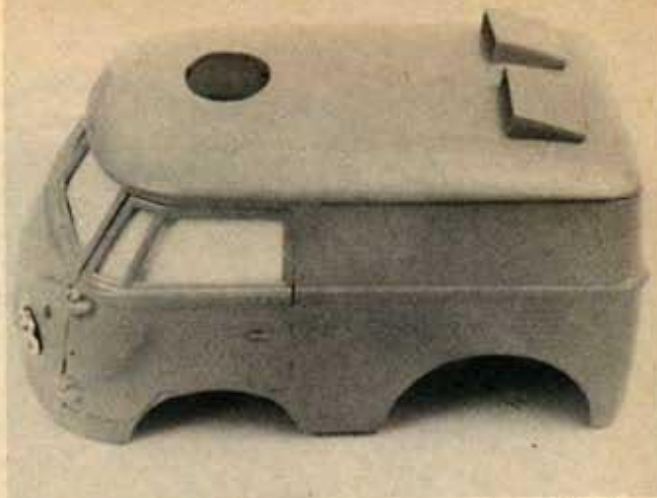


The Revell "Bed Bug" box illustrates a Deal design on its top but a nearly stock VW panel truck (as shown on sides of box) is in the kit. We decided to make it look more like the box top. The VW Bed Bug sides are shortened by the same amount as the width of the side doors. Mark the side opposite the doors, at the door line, and cut. Slice at the back edge of the front door, as well.

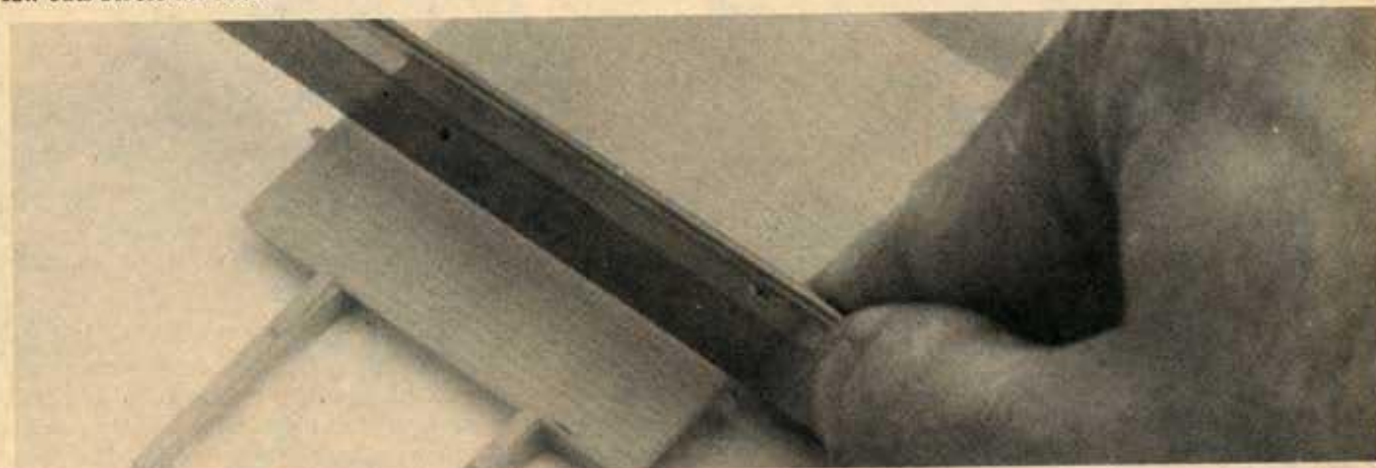




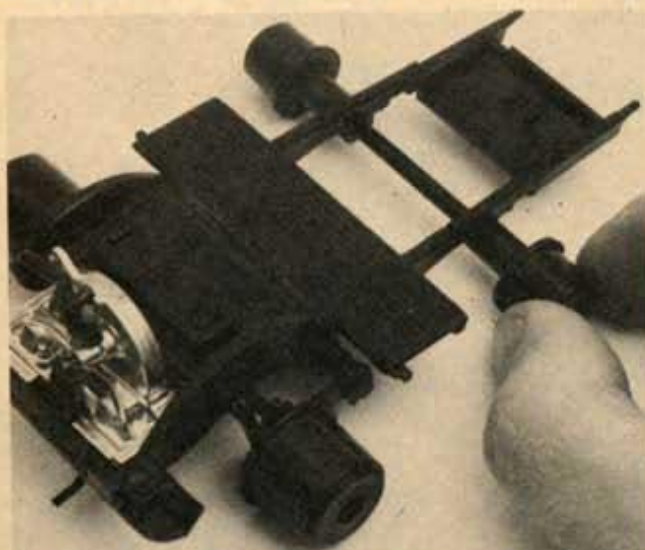
The Bed Bug's roof piece must be sectioned to reduce its length to match that of the two sides. Again, use the rear edge of the door and the door width as a guide for the razor saw cuts across the roof.



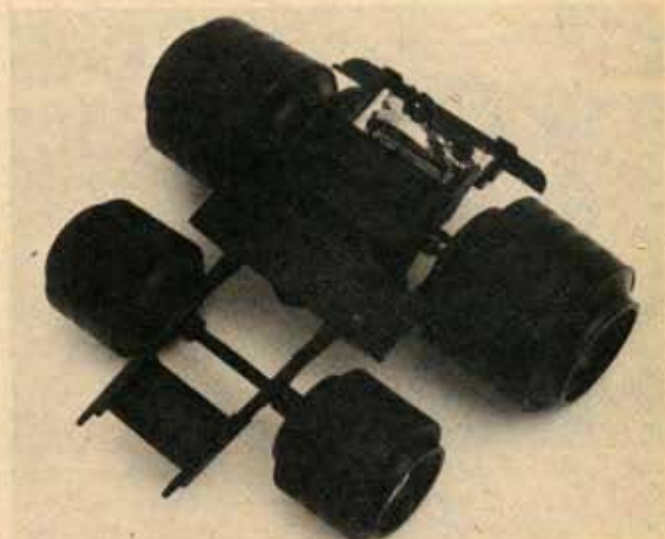
Assemble roof and two sides with scraps of plastic inside to reinforce the joints. Front doors are best glued in place to help reinforce the sides and to keep them in alignment at the door. The vent hole in the roof is an option to clear the cartoon driver's head from the "Deal's Wheels" dune buggy. Vents on the roof can be positioned on the sides, or as shown. Wheel cutouts must be trimmed to clear the "Deal's Wheels" front and rear tires.



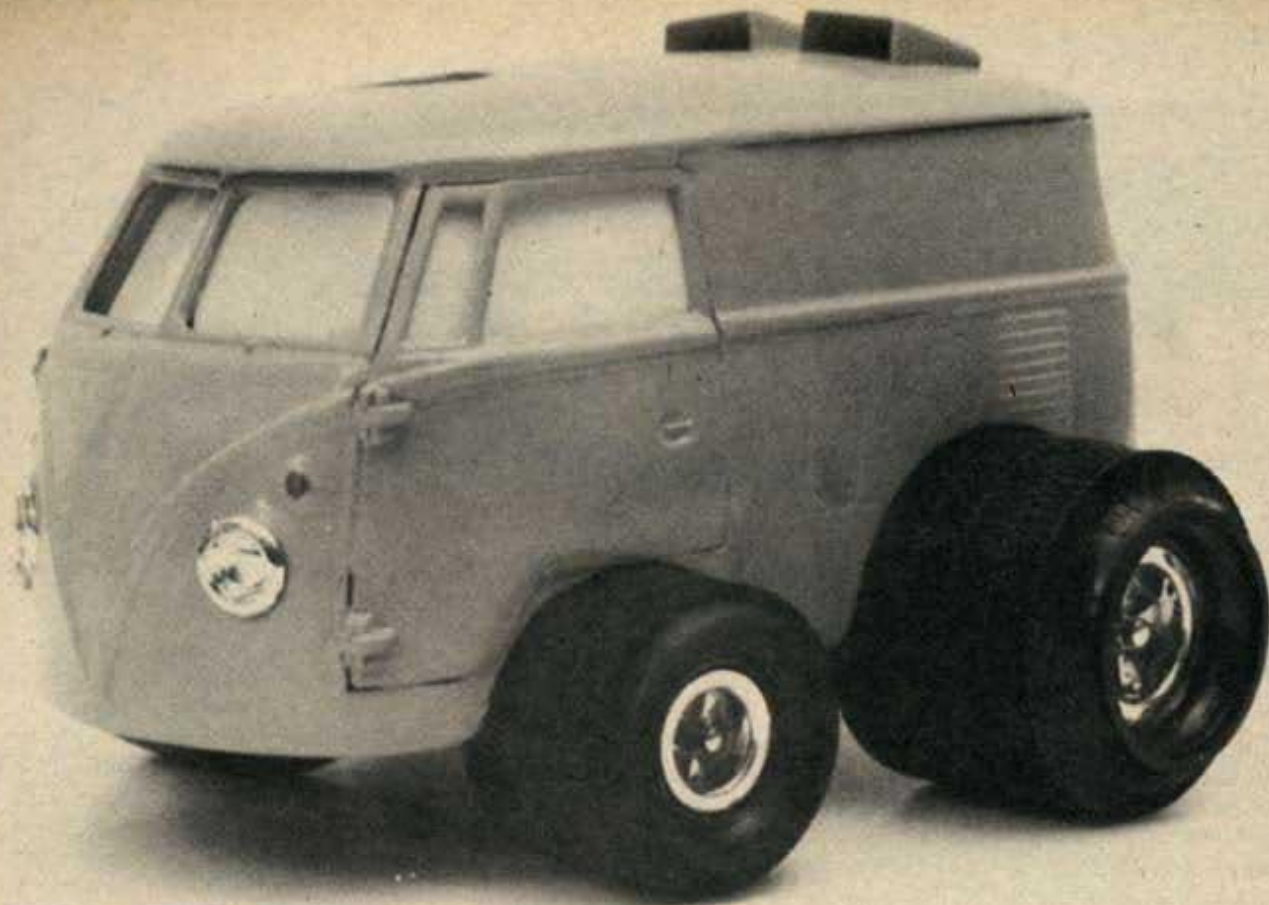
The "Bed Bug" chassis piece must also be shortened to fit. Make first cut exactly as shown. Second cut is made at the corner where the rear fender fronts meet the chassis floor.



The Deal's Wheels are glued to the shortened VW axles at the rear. The Deal's Wheels axle and wheels replace the Bed Bug's front wheels and suspension. Check the tire clearance now.



We used the Good Boot front and rear tires and mag-style wheels from the Deal's Wheels Camaro on our panel truck, but any of the wheels or tires in the series would work as well.



Now that looks more like a VW panel delivery truck should! If a full-size version of our Bed Bug had enough power to turn the wheels over it would never lack traction!



The High Blotation tires, from Deal's dune buggy, will perk up the appearance of any 1/25 scale dune buggy kit. This is how the Revell "Gypsy" buggy would look with Deal's Wheels.



THE "BIG D"

Here's a bristling, hairy reproduction of Team McLaren's '70 Can-Am car.

The scene is Watkins Glen, N.Y., the 12th of July, 1970. Denis Hulme is at the wheel of the McLaren M8D. Things went well for Hulme, but quoting from *Competition Press & Autoweek*, "Denis Hulme led from start to finish to win today's Canadian-American Challenge Cup Race here, but it wasn't as easy as winning Can-Ams used to be for Team McLaren." Hulme complained of a bad track and during the early part of the race, the threat of Hall's wild new Chaparral 2J "flying vacuum cleaner" did not make things any easier. Chunks of the track were clogging his air intakes and this posed the problem of overheating. Hulme covered the 200.0 miles in 1:41:16, not quite a track record. Last year, Hulme and McLaren took a one-two victory at W-G with McLaren averaging 125.99. The Glen is a 2.3 mile course shaped for reasonably high speeds.

The model depicted in this article is a close scale replica of Hulme's car. Using the Tamiya M8A as a base, the author modified the car to resemble the pictures found in the *Competition Press Weekly*. Also, for reference, the 1970 *Auto Racing Annual*, published by Souvenir Press Ltd., London, W.1 and annually available from Magnum-Royal Publications, 1560 Broadway, N.Y. 10036, was used. A fine photo of the Hulme car is shown on the back inside cover of this magazine. A full page three-quarter rear cutaway by Dave Kimble gives the reader some fine detailing data for engine wiring and etc. This cutaway is of the M8B, but the appointments are basically the same.

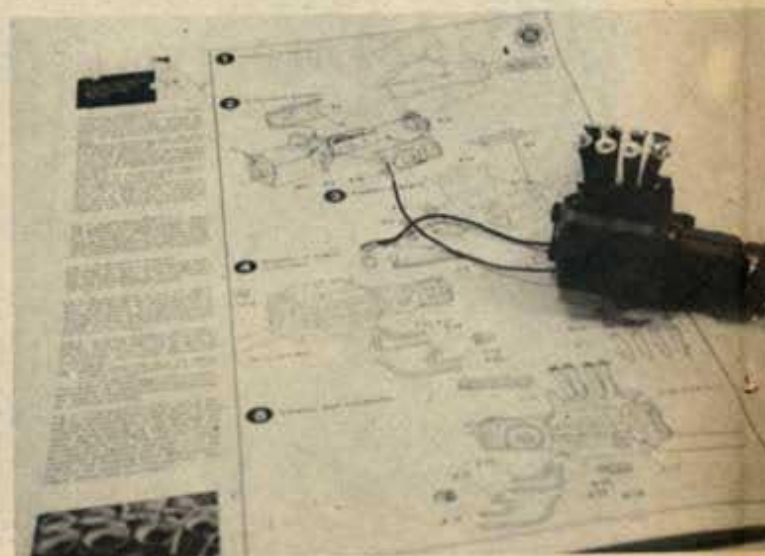
A few minor inaccuracies are evident but the reader/modeler will have to either live with them or buy another 1:18 scale kit to get the parts. One of the most noticeable discrepancies is the wheels that come on the Tamiya kit. These are inaccurate in color for the front, which can be corrected, and completely wrong in the rear. I suppose that a talented modeler could make an insert that would look right but it would be a difficult task. The M8D does not have a blue windshield and if you have a facility for vacuum forming plastic, I would suggest changing the stock screen to a clear one. Pactra S13 is not quite right and the only way to get a perfect match is by using bottle paints, proper mixing and an airbrush. This, of course, is impractical for the majority of modelers unless you have the airbrush available.

However, aside from these problems, you can convert

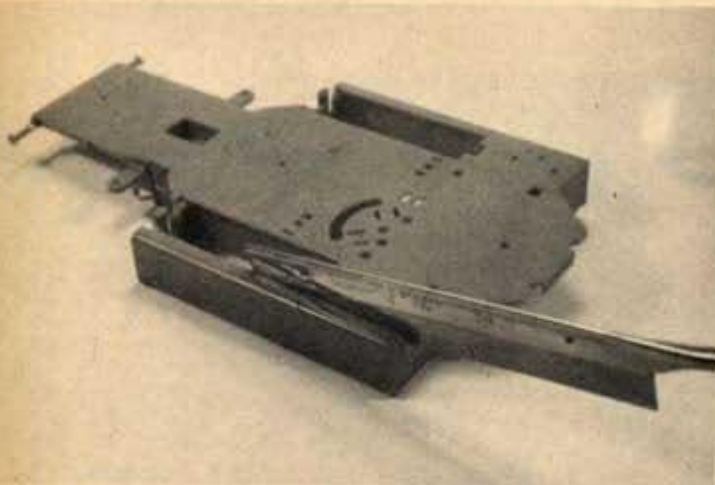
By Ben Millsbaugh

the M8A to the D series car with only a little time and talent. I would suggest that you don't use small tubes of putty for the fin work. Rinsed Mason makes a fine putty that is completely compatible with plastic. It is called "Green Stuff" and is available from any dealer that handles R-M products. Don't let some paint man, however, talk you into any glazing putty . . . they don't all work the same. If you can't get R-M products in your home town, I would suggest that you write directly to Jerry Campbell of the Squadron Shop, Dept. MCS, 23500 John R., Hazel Park, Michigan 48030, and request a tube of the stuff. I'm sure that the price of a pound tube will be less than you expected and the putty will last for all of the customizing work you will be doing for a year or so!

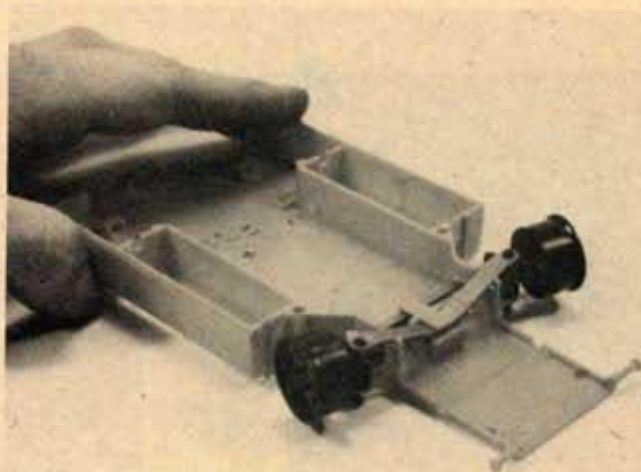
This model is just bristling with excitement. The fins, the low front end, the wing, the pipes sticking up from the rear compartment . . . all of these things compliment the brutal appearance of the "D." With a little patience and concern, you can have this model gracing your desk or shelf. Like it? We did, very much.



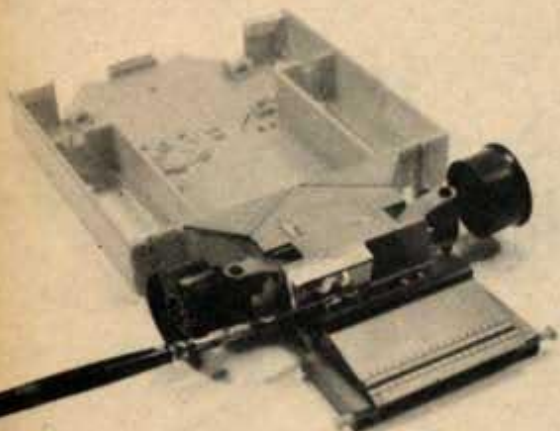
The engine is built according to instructions and the velocity stacks are painted black instead of the chrome that comes with the kit.



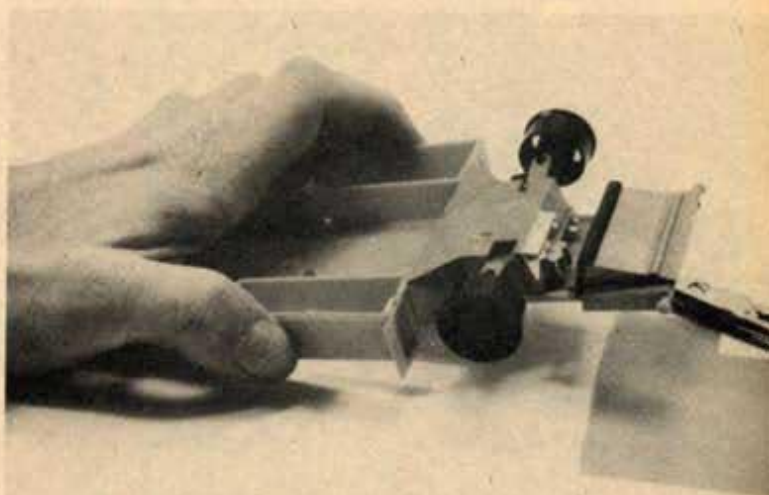
Before assembly of the front suspension system (No. 6), let's first modify the lower pan. Using an X-Acto saw, "section" the pan 1/8th inch (on each side) at the outer edge of the battery compartment.



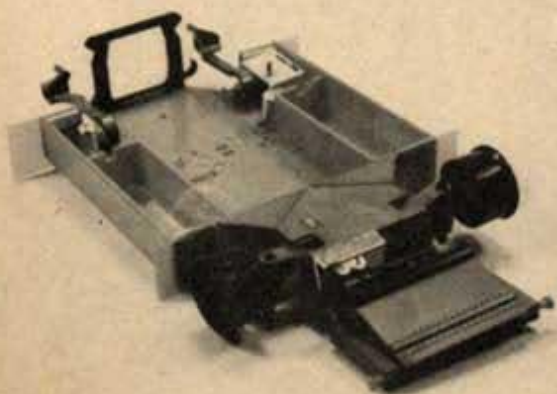
The ackerman steering is now installed. Note that the wheels are now slightly wider than the pan. This is due to the full 1/4 inch sectioning of the pan described in No. 3.



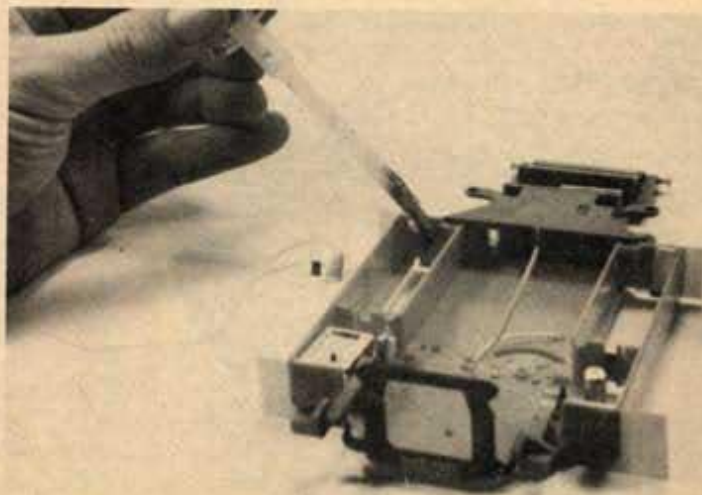
A bit of touch up and your front suspension is complete.



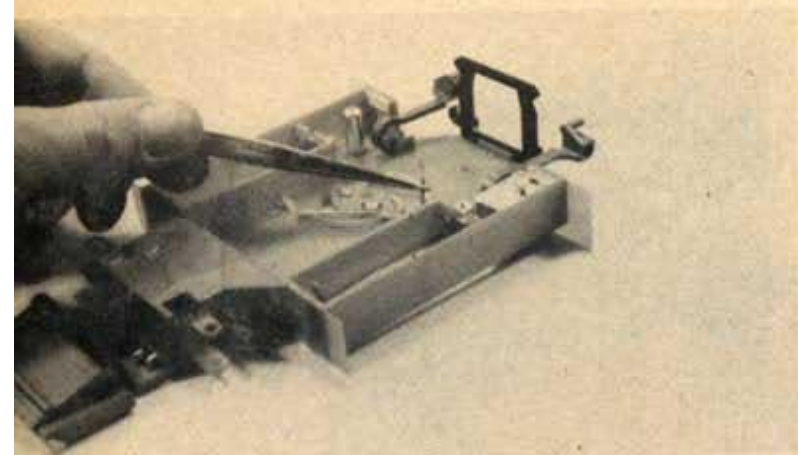
A very thin piece of plastic is used to make an overlay for the wheel well/pan area.



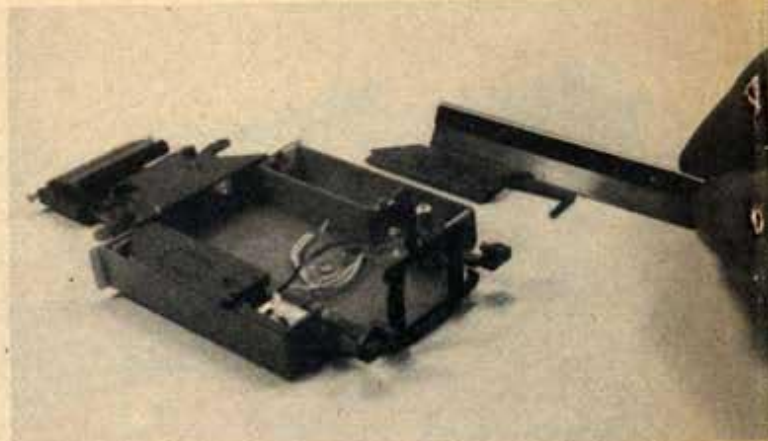
This overview shows that the plastic pieces extend beyond the edges of the pan. The upper body will rest on these pieces, so don't trim them until later.



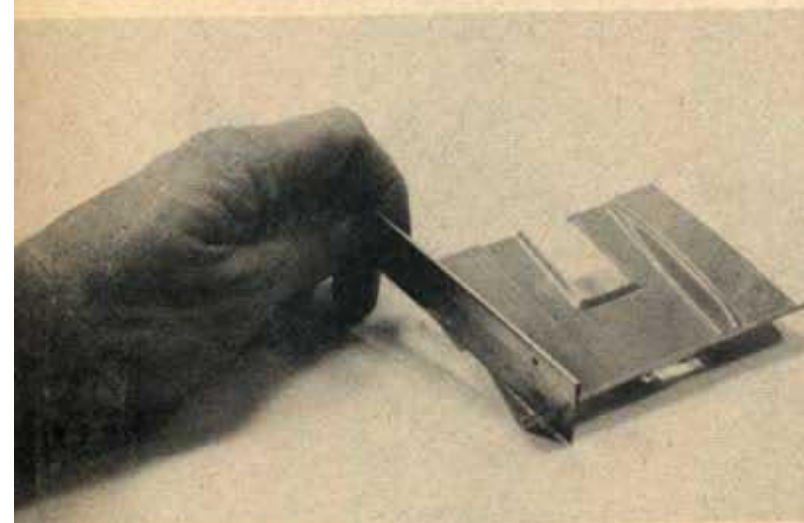
If you plan to motorize this model, you will have to modify the "M2" contacts to fit inside the wheel well on the back of the battery housing. Contact cement works well for this purpose, since it sticks to plastic and brass. Coat the brass and the plastic. Wait 15 minutes and install.



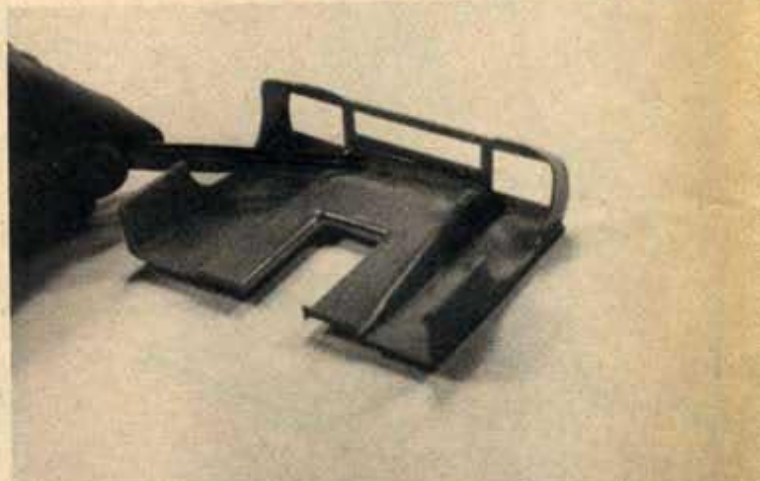
The red wire from the motor is cut 1.5 inches from the tip. This wire is hooked to "M3" on the left side. The reason for this being that we are going to paint the lower pan without the engine and this makes the assembly much easier later.



The inner cockpit gas tank covers must be cut down to fit the sectioned part of the pan. The X-Acto saw is again used for this purpose. The paint to be used is Pactra S13 Orange. The lower pan assembly is painted at this point using standard techniques.



While we're waiting for the lower pan to dry, let's start on the upper body. First, remove the back spoiler from the rear body member.



A piece of plastic is used to reinforce the area that has been cut when the spoiler was removed. Putty will be used to build this area up and sanded out to a smooth, rounded rear edge.



A good quality putty is now used to fill in the area where the spoiler was removed. Let putty dry for at least a day and a night.

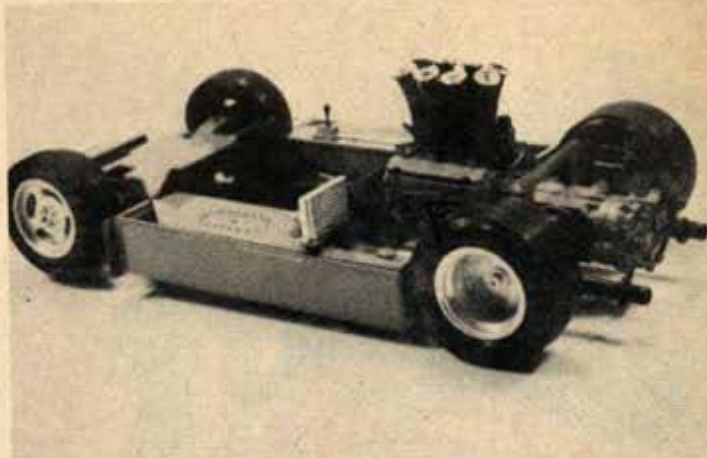
30/Model Car Science



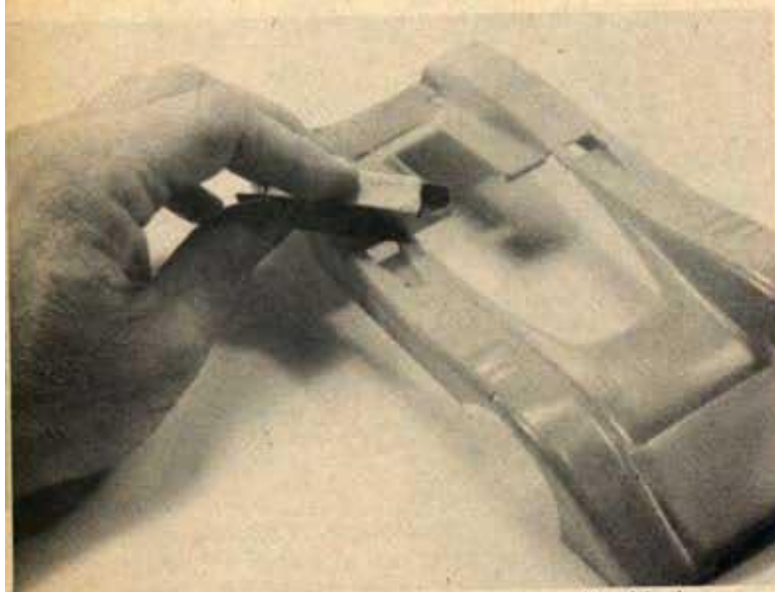
By using a little ingenuity with thin plastic and putty, you can convert the standard Tamiya McLaren driver into the Hulme "Bell Star" version.



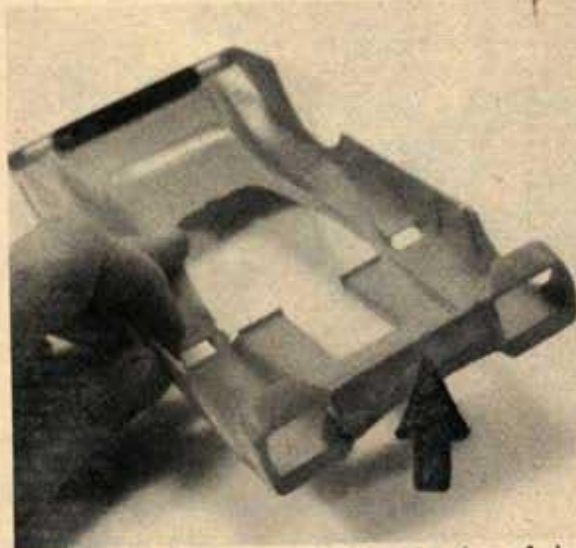
The front wheels of the Tamiya kit come with black coloring. These must be sprayed silver (such as Testor's Silver) to be authentic.



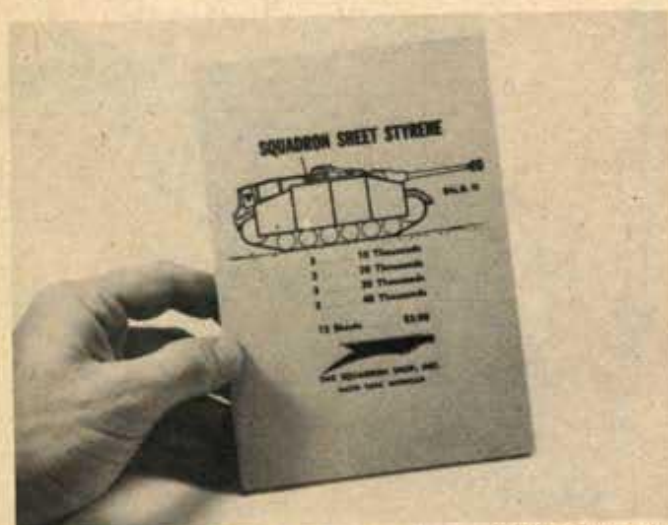
With modifications complete and having completed instruction step 14, your D-model McLaren will look like this. Further engine wiring and cockpit detailing such as foot pedals should be finished now.



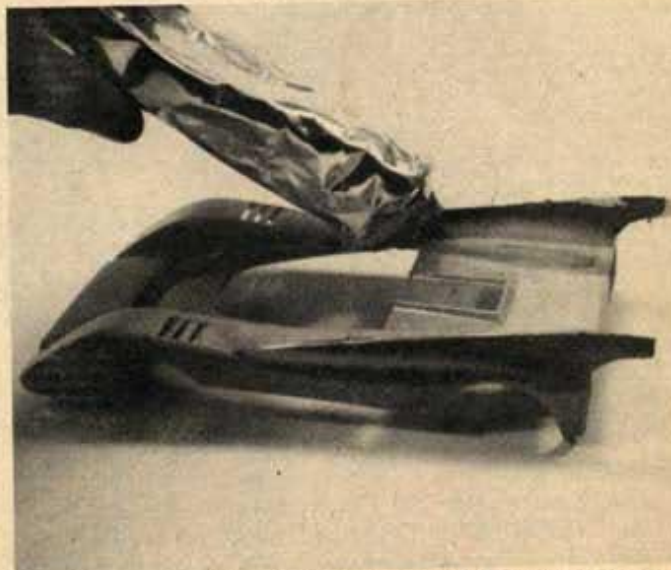
The scoops are sanded smooth using a sanding block.



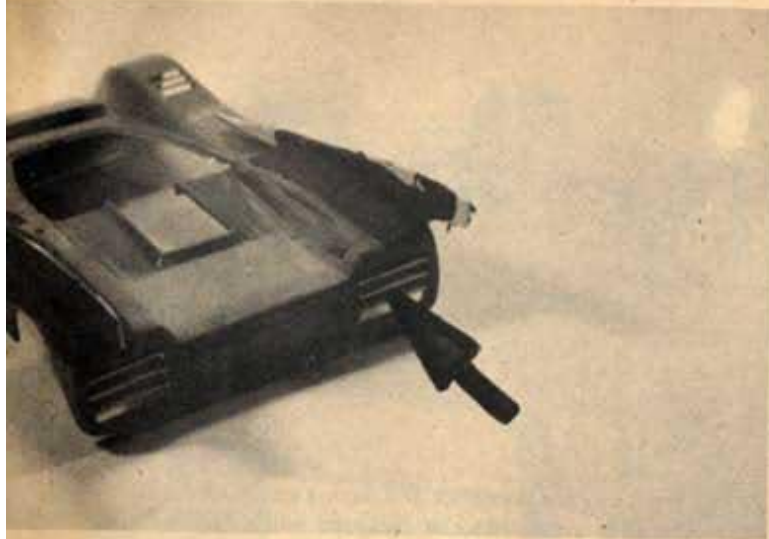
The center opening is filled in using a piece of plastic first, then putty to bring the surface to perfection.



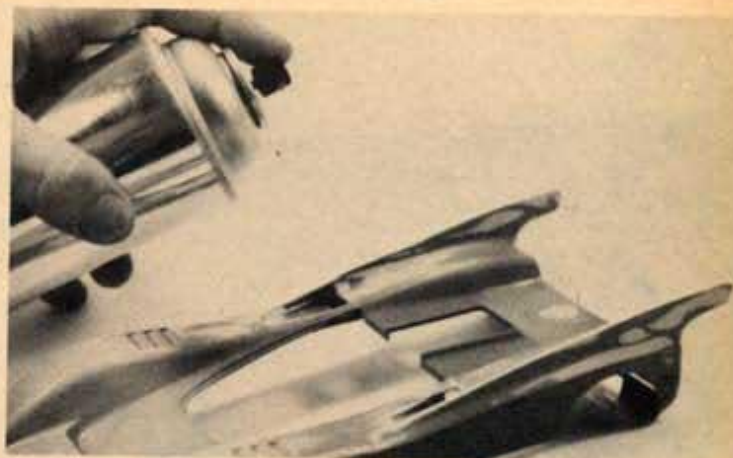
Okay, we're now ready to start on those wild fins. You will have to get a sheet of styrene that is quite thick. The sheets shown here come in a packet of 12 for \$2.00 from the Squadron Shop. The size used on our car is .040.



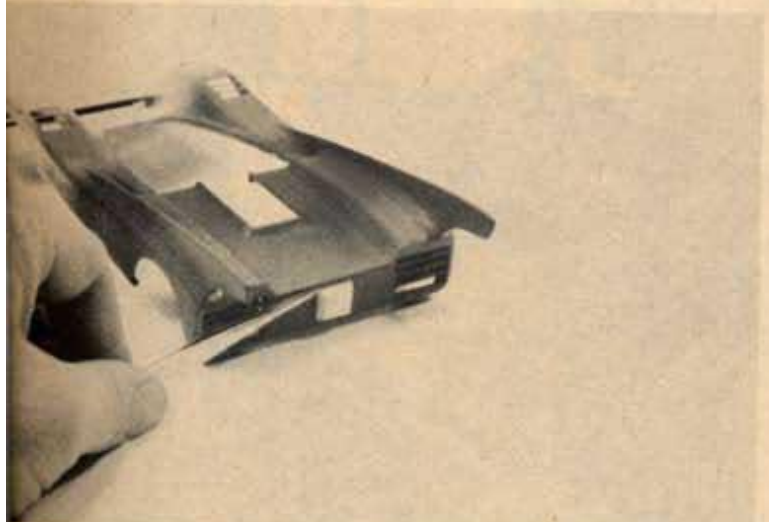
This is how your fins will look mounted. The putty is now used to "fair" in the fins.



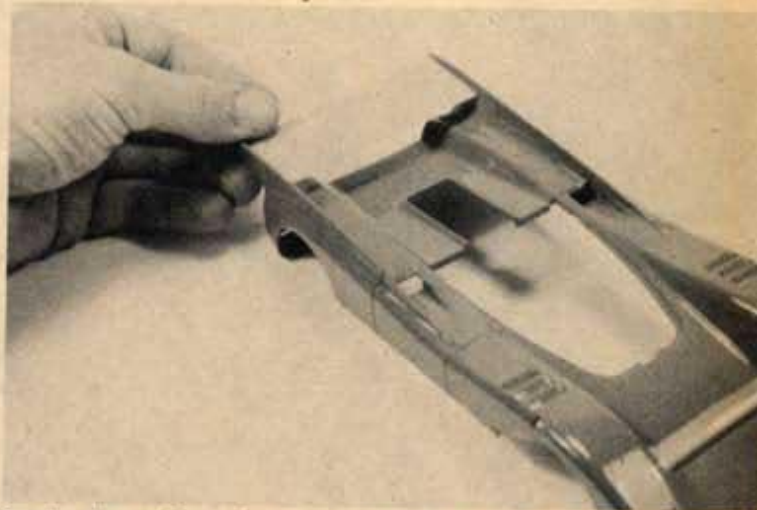
Small pieces of plastic "bar" stock is cut to form "vents" in the two large openings in the rear.



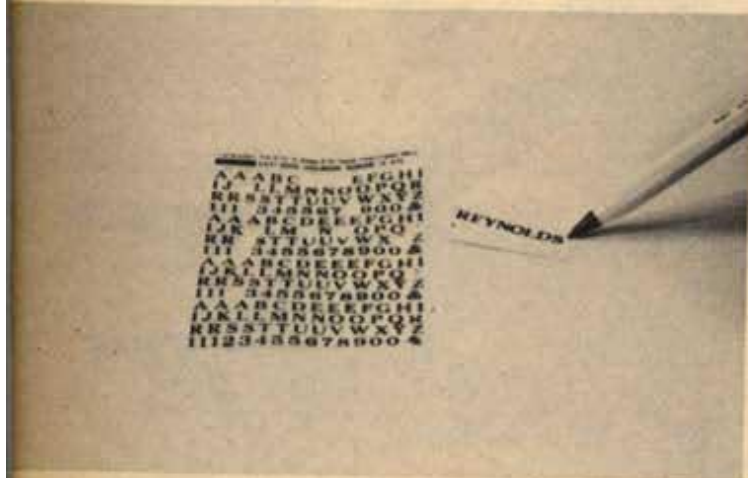
Careful sanding of the puttyed area will give the desired curve to the fins. A good quality primer, such as Martin Senour's Primer-Surfacer (found at all of the over 4000 NAPA dealers in the U.S.) will bring out the imperfections so that they can be sanded.



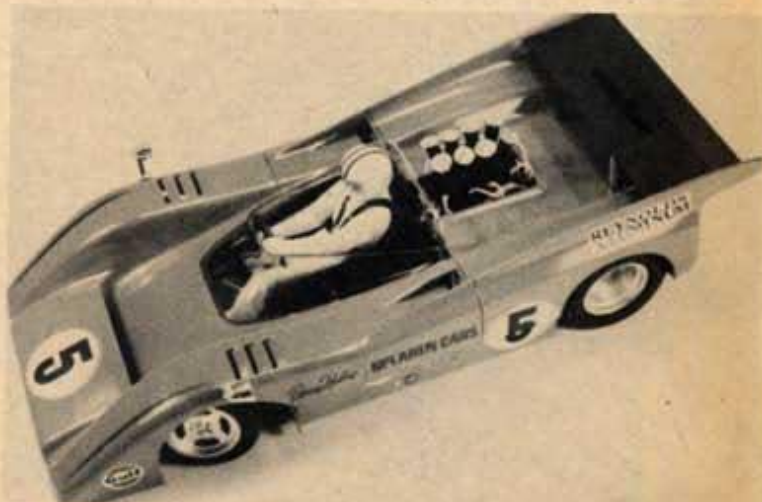
A small square piece is cut from scrap plastic and beveled to shape. Your McLaren is now ready to paint. Again use standard procedures and Pactra's S-13.



A wing is cut from sheet stock plastic. It must fit snugly between the fins and be about one inch across. Your fins will vary due to shrinkage in the putty and for this reason, we have not included a template. Use your eyes to judge.



The decal set with the Tamiya McLaren does not include the "REYNOLDS ALUMINUM" decal that is found on the M8D. Find a piece of white sheet stock about 1-1/4 inch long. Using Letraset Extended Roman 1/8 V 15 for lettering, make the decal.



Decals, mirrors, wing supports, injector lines (made from speaker wire with the wire removed), driver painting and detailing and windshield fitting will bring the big "D" to this point. This baby bristles with excitement!

MPC'S 3RD ANNUAL CONTEST

It was so much fun last year, let's do it all over again this year!

MPC has announced the start of the 3rd Annual MPC National Model Car Customizing Contest, to be held in conjunction with the International Championship Auto Shows. The contests will be held in 15 cities beginning in Minneapolis on November 13, 1970, and running through April 16, 1971 with the final contest in Seattle.

In each city, the contest is held at the custom car show conducted by the ICAS which is usually a three-day, week-end promotion. Contestants enter their models on the opening night of the show and until 3:00 P.M. on Saturday. Judging takes place on Sunday afternoon, at which time awards are presented.

There are four classes a modeler can enter: Junior, Senior, Adult and Professional. Judging is based on originality, quality of craftsmanship, modifications, and detail of finish.

Trophies are awarded in each city for 1st, 2nd and 3rd in each class, in addition to special trophies for best paint, detail and originality. A grand award is given for Best in Show.

"These contests have been so successful," said John Deegan, General Manager of MPC, "that we are adding five new cities to the list. We believe there is no finer way to promote model car building and create excitement and desire among the builders. When the kids come to these contests and see what is being done, they get turned-on. Each year the number of entries grows at each city. Last year in Detroit the largest number of cars ever assembled took place."

The 3rd Annual Model Car Customizing Contests will be held in the following cities:

Minneapolis	November 13-15
Chicago	November 20-22
New York	November 26-29
Flint	November 26-29
Houston	December 4-6
Dayton	January 8-10
New Orleans	January 8-10
Detroit	January 22-24
Louisville	January 29-31
Milwaukee	February 5-7
Cleveland	February 12-14
Cincinnati	February 19-21
Atlanta	March 5-7
Washington, D.C.	April 9-11
Seattle	April 16-18



A Camaro gasser, that is —
courtesy the Testor Corporation.

By Brick Price

A REAL GASSER!

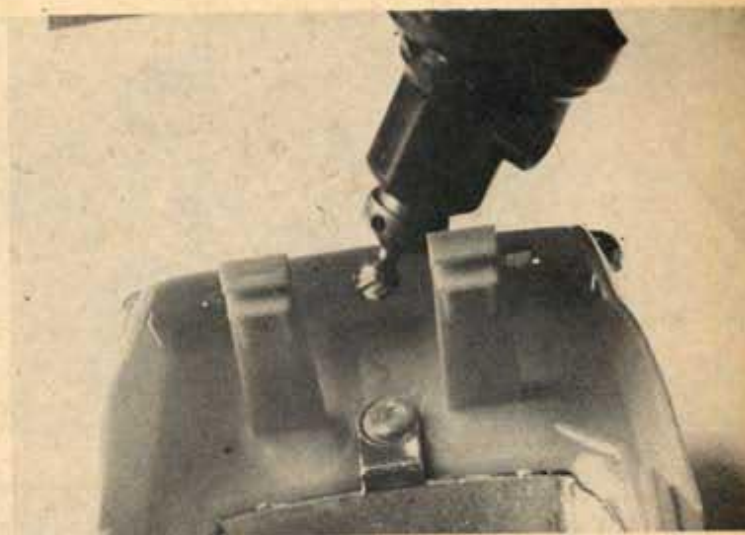
The Testor Corporation has an excellent gas powered model Camaro which, with a little help, makes an exciting machine to own and run. It's a handsome car, as is, with a pumpkin orange body, black stripes and chrome plated windows, but with less than a buck's worth of Testor spray and bottle paint, you can transform this into a real Cinderella machine.

You can easily transform the Camaro into a pro-stocker, funny car, or Trans-Am machine. We chose the latter because we wanted to run the car on a tether, rather than "drag" it.

All you'll need for the transformation is a can of Testor's metallic blue, a bottle of silver and a bottle of black, plus the normal assortment of hand tools.



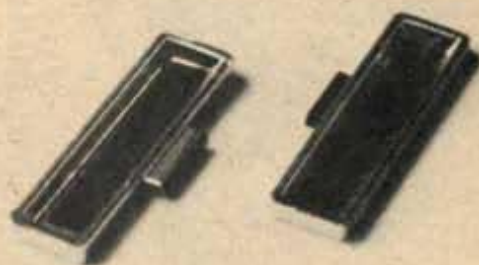
Grind off the melted plastic that holds the front and rear windows in place.



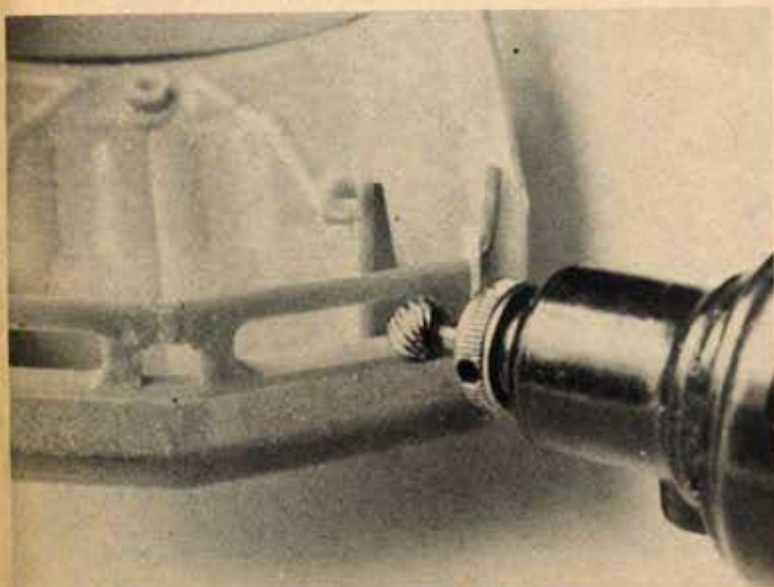
Grind off the retaining lugs on both bumpers and remove them.



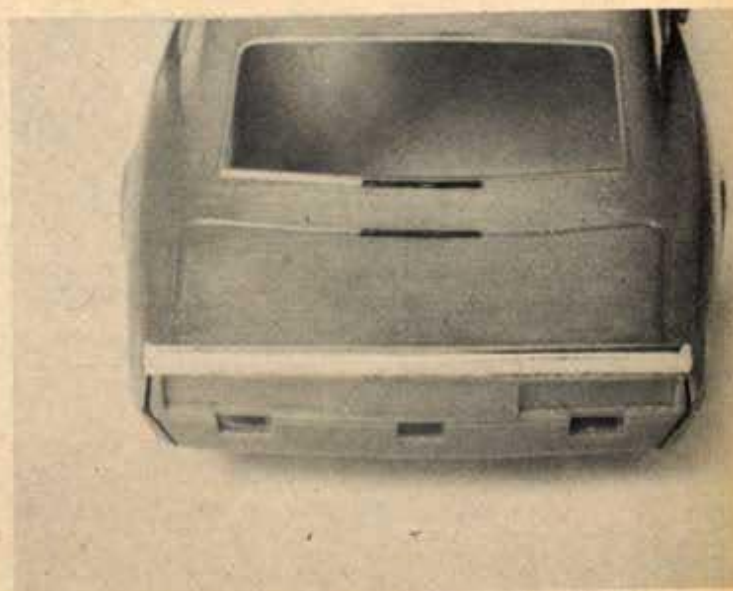
The front bumper will become the diaphragm, so remove 1/8" from the middle and thin the entire unit with a file.



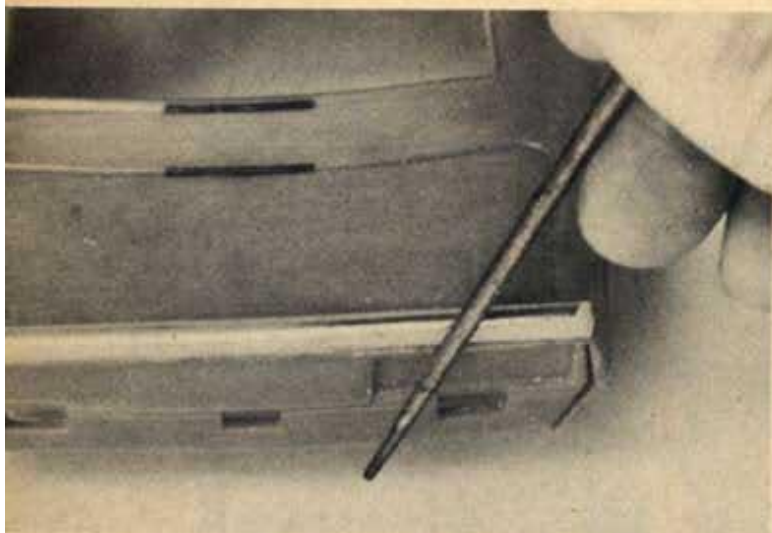
Be careful when cutting the taillights off the rear bumper, since these will be used later.



Enlarge the holes left by the bumper to make functioning air scoops.



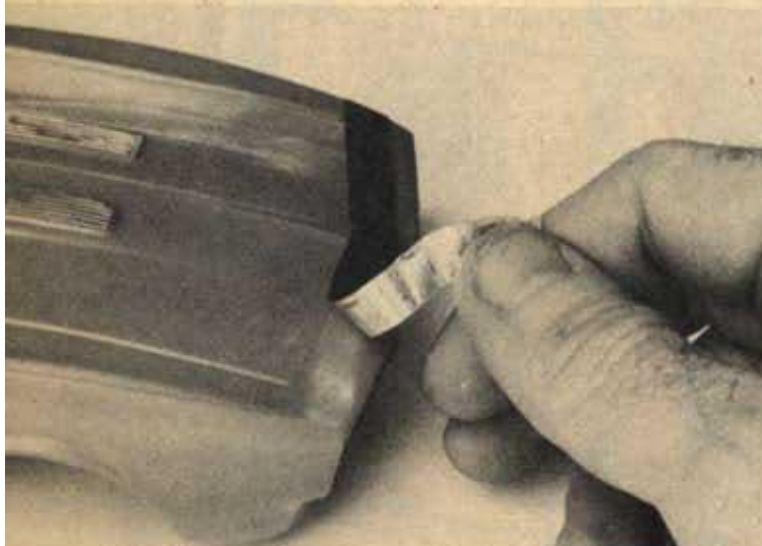
Glue the rear bumper to the top of the trunk and trim it flush with the sides.



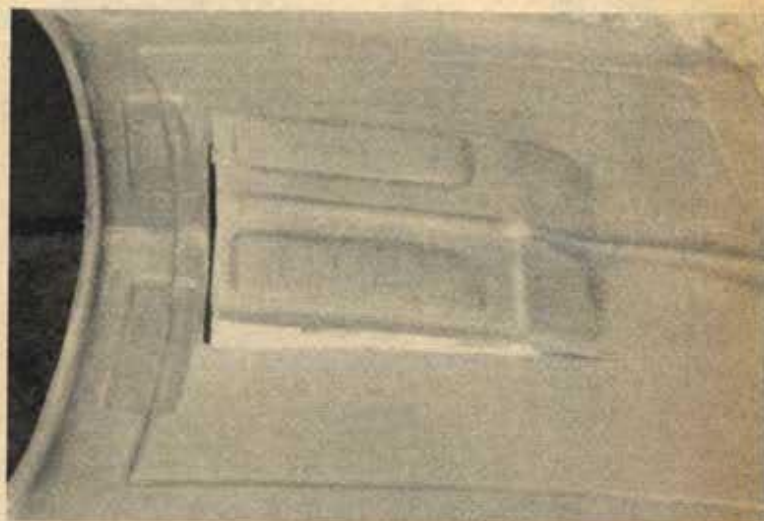
File the back side of the new spoiler flush with the rear panel. Fill in the bumper mounting holes.



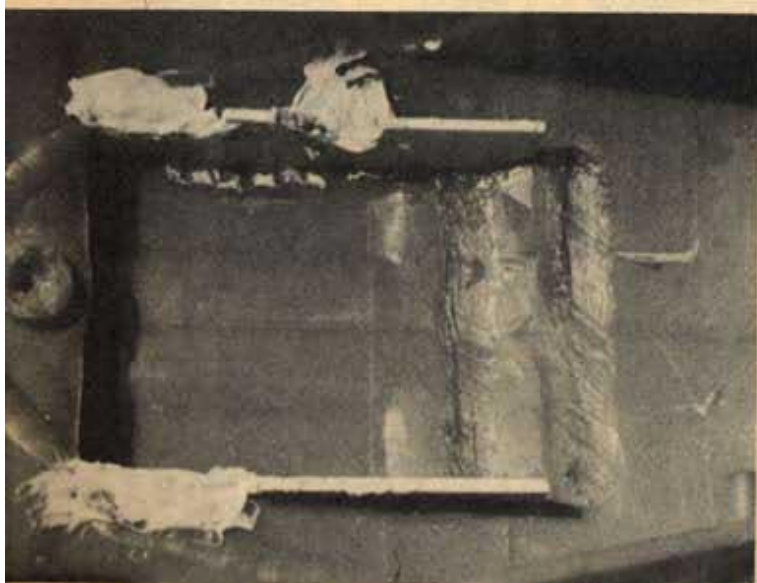
Use Flex-I-Grit sandpaper and water to sand off the racing stripe, and to "rough up" the body to prepare it for paint.



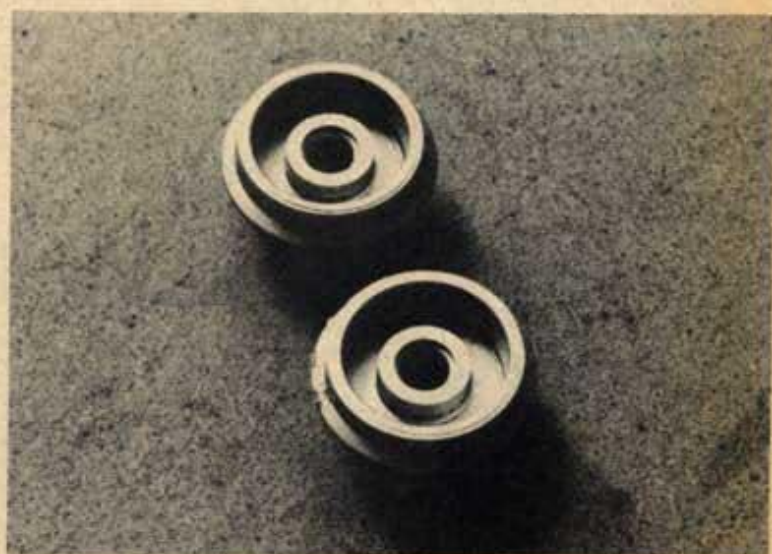
Peel off the stripe over the nose and the simulated grille. Wipe off the glue with a cloth, dipped in Bestine or alcohol.



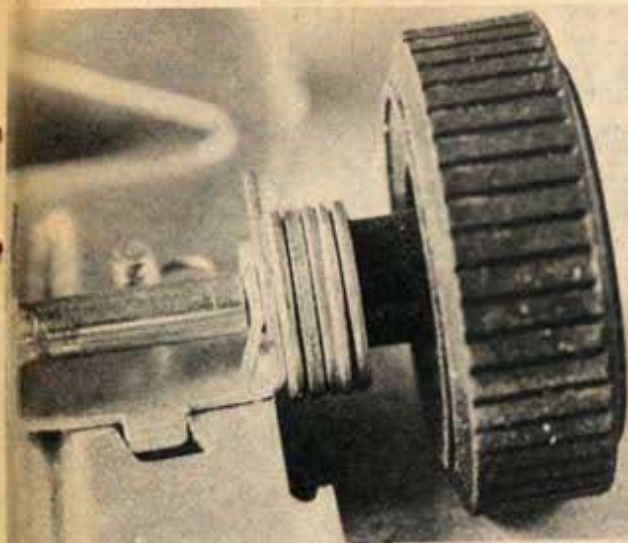
Cut around the hood scoop with a razor saw on three sides, and bend it up. Fill in the sides with sheet plastic and Testor's body putty.



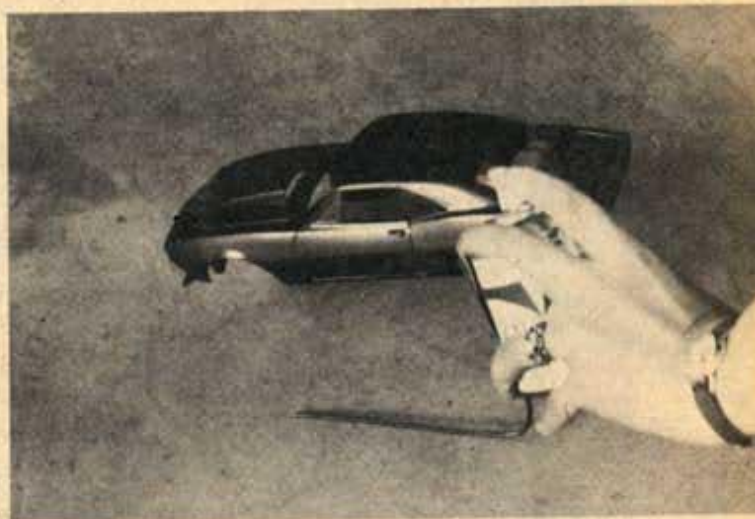
A soldering iron will form a quick, solid bond between the plastic filler pieces and the body.



Remove all four wheels and paint the hubs silver. Allow the wheels to dry thoroughly and insert them from the front to avoid scratching.



Place washers between each wheel and the frame until the tires are flush with the body.



Paint the body with Testor's blue metallic or royal blue. You can speed up the drying process by placing the car in direct sunlight or under a light bulb.



Paint the windows flat black and the window trim with silver. The word "Sunoco" is Letraset rub-on letters, and the decals are from Auto World. Goodyear Pliobond is the best glue to use for replacing the grille. Glue Kemtron screen to the body behind the air scoop holes. Reflective tape is great to simulate taillight lenses.

The difference between the stock Camaro and our Trans-Am car is startling. The best part is that the cost was only 99 cents!

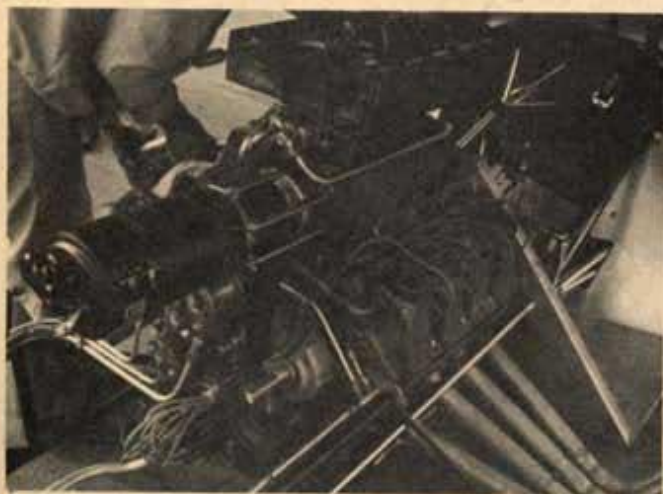




The famous Chrysler "Hemi," in 1/20 scale, is part of the new MPC "Zinger" 'Vette kit. This real one was built by the best — Keith Black. Only spark cables are in place. Fuel lines will lead from tee above crankshaft pulley to injectors, tank.



Another Keith Black Hemi (in Don Prudhomme's car) with the fuel lines in place. You'll have to fabricate the fuel blocks and unions from scrap plastic or blobs of glue or epoxy for model.



The famous sohc Ford 426 as seen in Mickey Thompson's Maverick funny car. MPC's Dune Buggy "Zinger" has a similar mill in 1/20 scale. Black cylinder in front of blower is the removable electric starter — you won't need it on your model.

MILL MADNESS

By Robert Schleicher

In an era of exaggeration, why not emphasize the engine? The new MPC "Zingers" certainly do!

Most modelers and real car buffs focus most of their interest on their machines' engines. Except for an all-out rod, however, all that mechanical beauty is hidden from view beneath a steel (or plastic) hood. Most modelers place the same limitations on themselves the real car builders do in finishing their engines to perfection, then tucking them away beneath a hood. The new MPC "Zinger" series places the emphasis on the engine, with 1/43 scale bodies and the engines an imposing 1/20 scale. With a "Zinger" kit, you can detail that miniature mill to your heart's content and know that it'll be right out front.

There are four cars in the MPC Zinger series, a dune buggy with blown 429 Ford sohc engine, a Corvette with a blown 426 Chrysler "Hemi" engine, a VW with double-blown Boss 302 Ford engine, and an Econdine-type "Van" with fuel-injected 327 Chevy engine. All of the engines are in a constant 1/20 scale and all of the cars in 1/43 scale. You can, if you wish, swap engines and cars to display your favorite mill atop your best body. The giant-size engines allow you almost acres of space to add extra detail painting, wiring, and/or fuel and oil lines.

There's a wide enough choice, among the four different engines in the MPC Zinger series, to allow you a choice of almost any 1/20 scale engine you might wish. When we first saw the kits, though, our thoughts turned to all of those super-detailed engines we had tucked away under the plastic hoods of our 1/25 scale collection.

Why not resurrect one or more of your 1/25 scale mills to display in the wide-open hoods of one of the Zingers? If you want to place the engine back in that show-quality body for a contest, it's always there waiting; but, rather than hiding under a hood, your 1/25 scale engines can be out in full view atop one of the Zinger bodies.

Whether you elect to use the 1/20 scale engine supplied with each Zinger kit, or substitute one of your 1/25 scale mills, you're going to want to add as much extra detail as you can. The ends of the exhaust pipes or intake stacks can be countersunk with a drill point, for example, then painted flat black for that "open" look. Naturally, you'll want to paint the engine accessories a different color than the block and heads. The jumble of wires, fuel and oil lines is what will make that engine look like it really belongs in a real car. The procedure is simple enough to use on any model car engine: poke the proper holes in the cylinder heads for spark plug wires, same with the fuel lines from the pump and tank to the carbs or injectors. Finally, run some insulated No. 36 copper wire or bare No. 24 wire or 10-lb. test nylon fishing line for the fuel, oil and spark lines.

The spark plug leads are normally a reddish brown or black; the fuel lines black with silver ends, and the oil and water lines braided silver. If you can't find wire in these colors, paint them after they're installed.

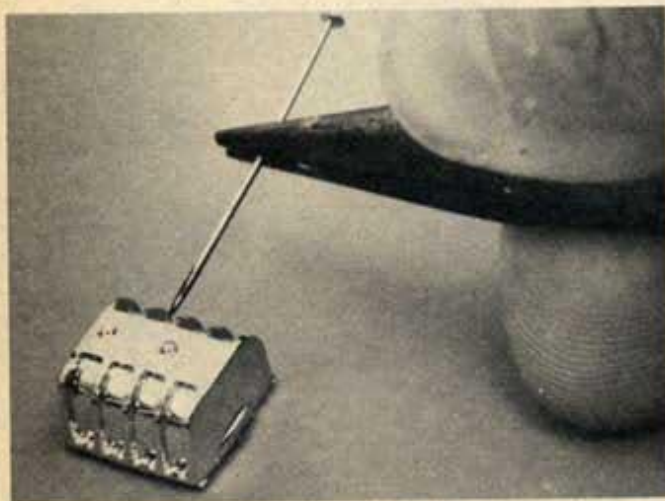
Look at the photos here, and the articles in the full-size car magazines, to see what goes where.



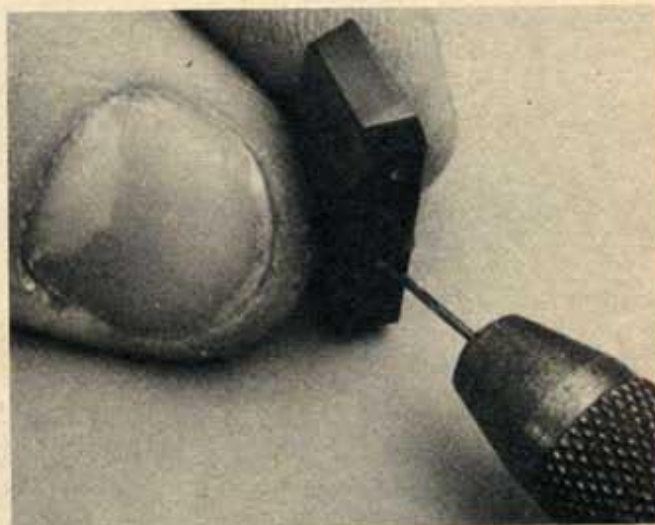
The MPC "Zinger" 'Vette, Volkswagen and Dune Buggy kits include blowers like this one (from the VW) that have chrome "rib" piece and separate interior to ease painting. Case is to be painted black, so chrome ribs will look like polished alloy.



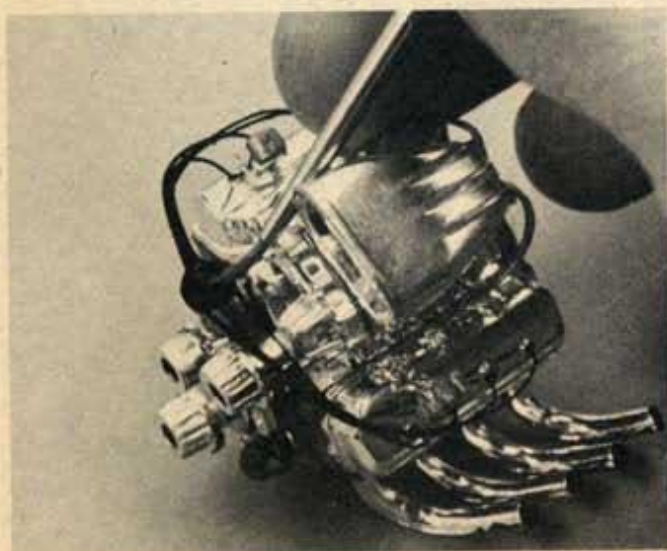
No engine model can be considered to be completely detailed without at least most of the ignition wires and fuel and oil lines. You can use fishing line, insulated or bare wire.



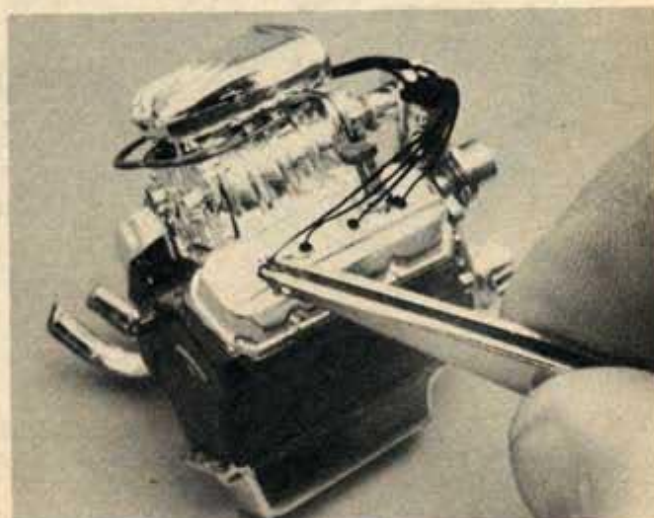
Holes for engine wires and lines can be punched in the plastic with the end of a heated straight pin. Hold pin over a candle for a moment and push immediately into part with pliers' pressure.



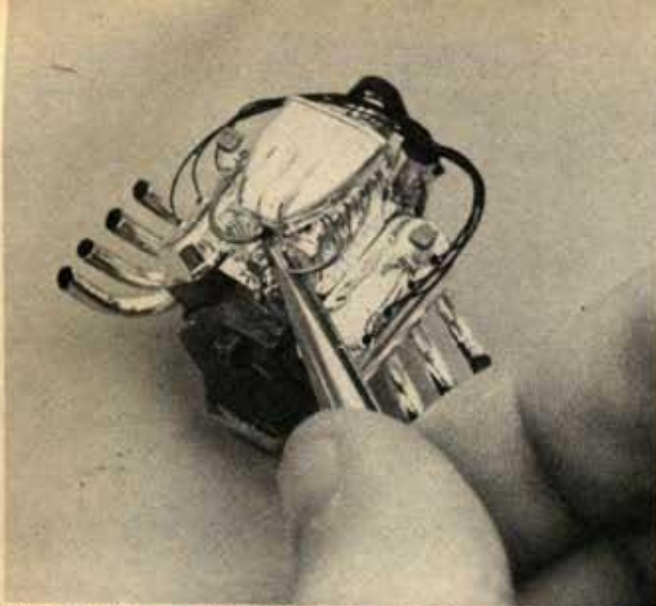
A fingertip drill called a "pinvise" costs only a dollar or so. Drills, to match the diameter of the wire you are using, are held in pinvise for a hand-drilled hole. Angle holes in head.



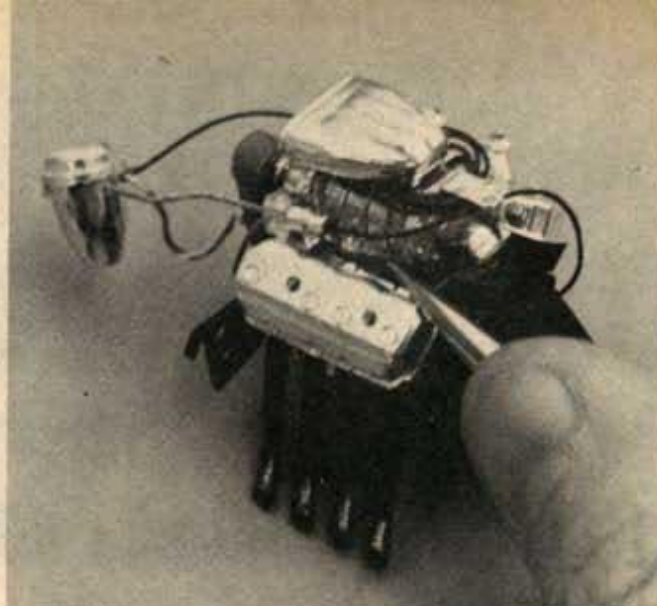
Usually the distributor is too small to drill nine tiny holes. Drill one in center (to lead to coil) and file four notches to accept the other wires. Epoxy eight wires to top of cap.



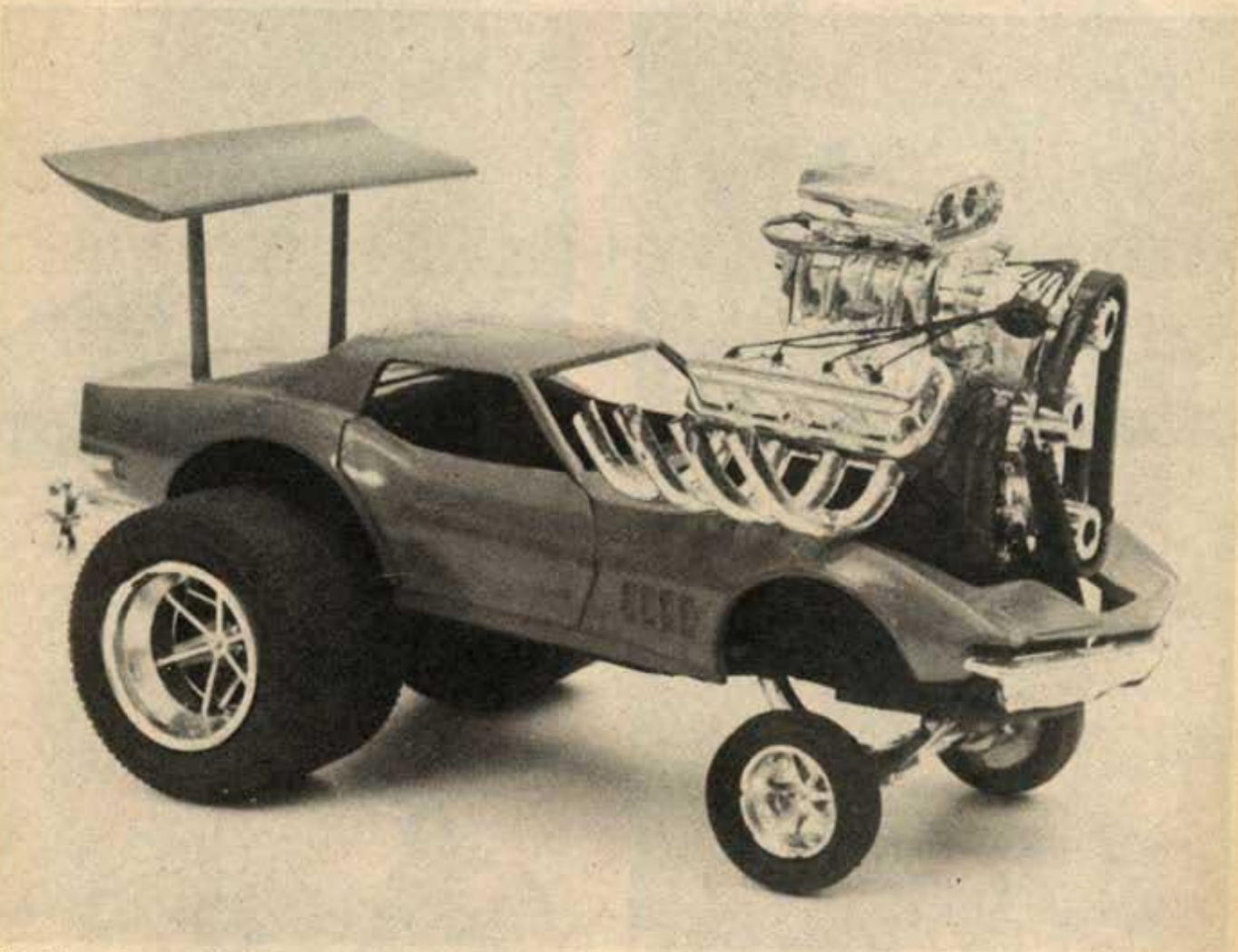
Study the photos of the real engine you are modeling, carefully. On this Chrysler Hemi, the spark plug wires lead to holes in the tops of the valve covers. Tweezers help hold wires.



The fuel lines on this MPC 1/25 scale Hemi were grouped and inserted as a bunch into a 1/32" hole drilled in rear of blower. A blob of epoxy or scrap plastic could simulate junction block.



Scraps of plastic simulate the fuel injection distribution pump (on the side of the blower) and the junction block (at the rear of blower) on this super-detailed MPC 1/25 scale Hemi.



This 'Vette is typical of the cars in MPC's 1/43 scale "Zinger" series, with oversize slicks and an engine bay large enough to accept kit's 1/20 scale 426 sohc Ford mill. The MPC "Zinger" cars make perfect display stands for the detailed engines that normally hide under the hoods of the cars in your 1/25 scale collection. We mounted a 1/25 scale MPC Chrysler Hemi, with full wiring and lines, in our "Zinger."

R/C MODS

Here's the finishing touches on Dynamic's beautiful gas powered road racer.

In the first installment of this series on Dynamic's r/c car, we showed you how to modify the suspension for greater rigidity. Now we're going to show you how to assemble the car and the electronic system.

I chose the MRC unit, one of the very best in existence, but any r/c gear unit will fit the Dynamic chassis.

Before assembling the car, cut the shock absorber tubes. Solder the tubes directly on the bases, fill up with SAE 100 grease, and assemble them. This grease, working inside the tubes, works much better than the stock assembly.

Give the front suspension 2° toe-in and 0° vertical, and the rear suspension 1° toe-in and 2° vertical.

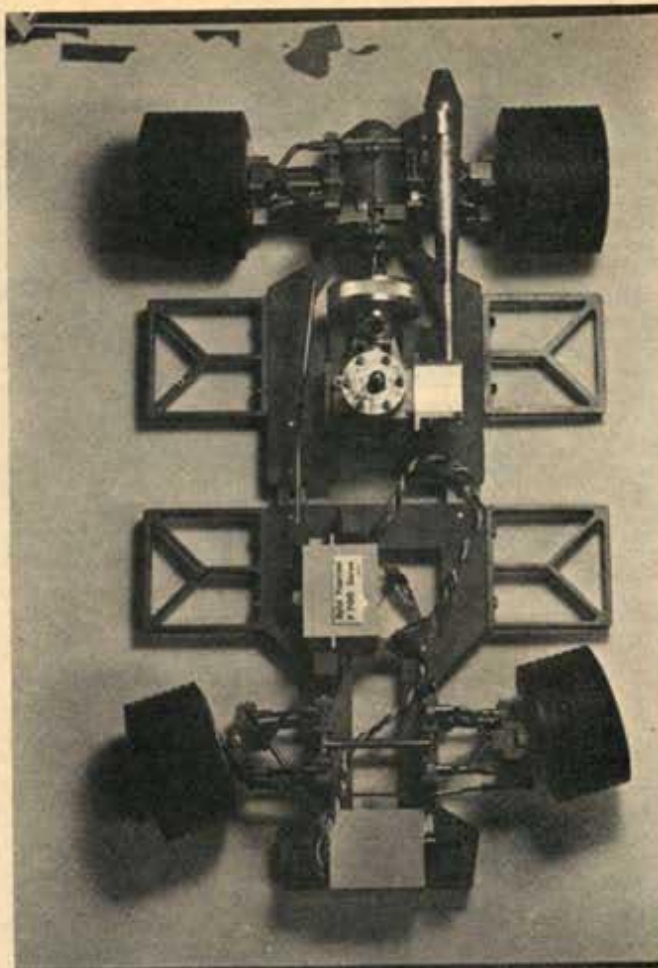
All servo units and other electronic gear must be mounted on hardwood blocks, to isolate them from the road vibrations which are transmitted through the suspension and chassis.

Place the tires on the wheels, using baby powder and a big vise. Every nut and screw in the chassis should be secured with "Loctite" and every part should be greased before mounting.

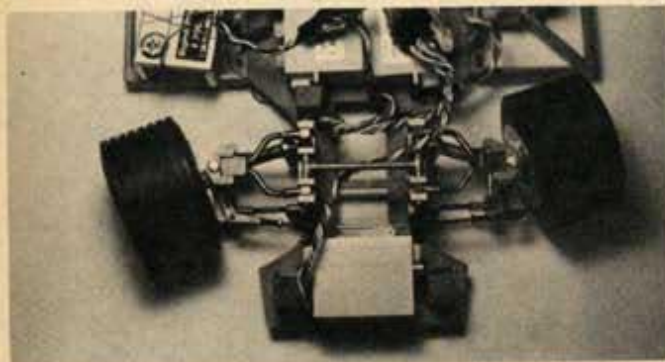
This chassis is quite competitive, after the modifications have been completed, and when we complete the body, next month, you will be extremely pleased with the car.

PART II

By
Phillipe
de Lespinay



This is the way to mount the servo and the front suspension.



Assemble the steering, using a piece of brass tube (not piano wire).



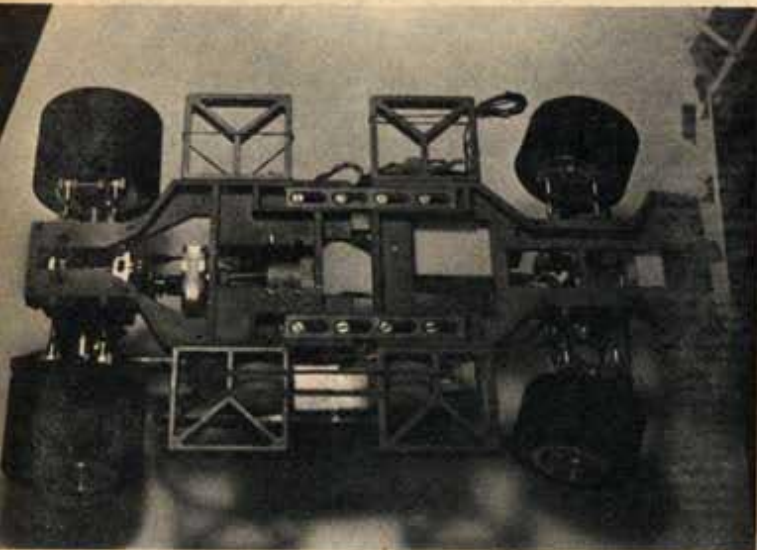
The adjustable Dynamic gas tank is mounted to the chassis with rubber bands.



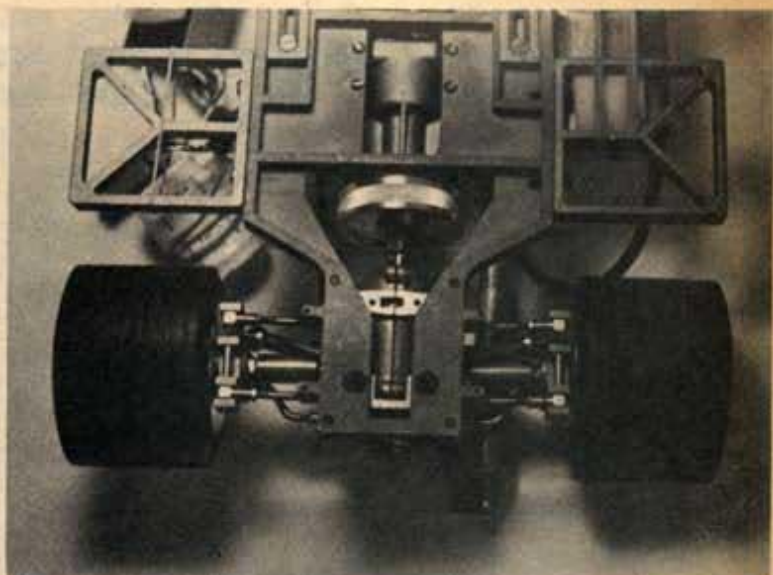
Control the resistance of your installed servo with an Olson, or similar.



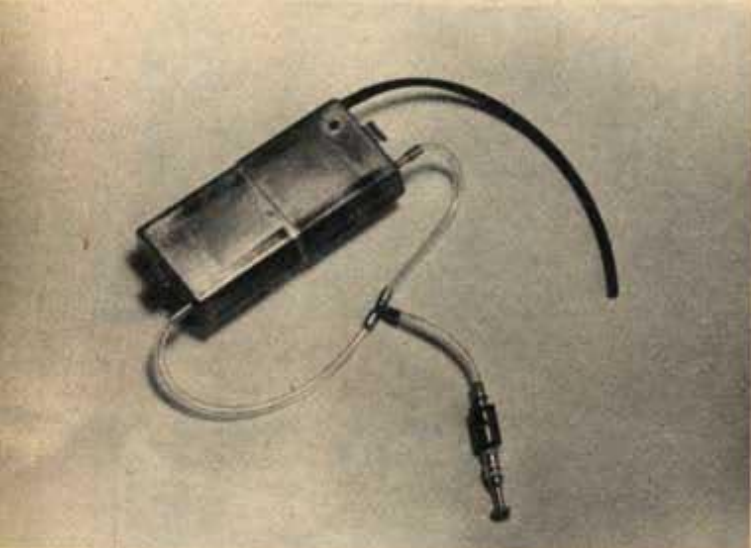
Your car, assembled.



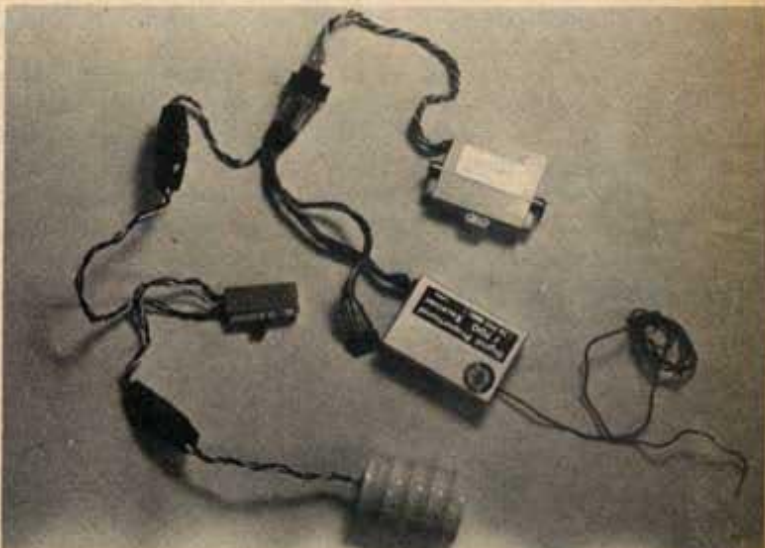
This bottom view shows the position of the screws for the servos.



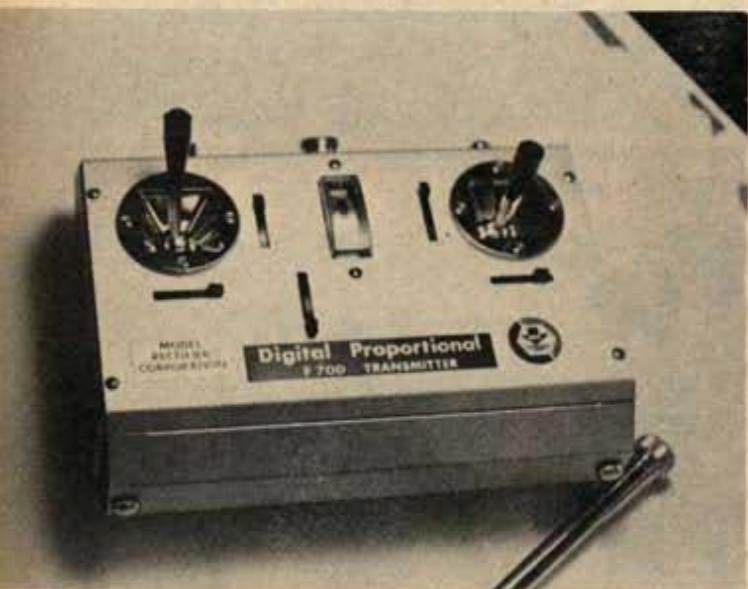
A gasket and a brass case works better than the stock part.



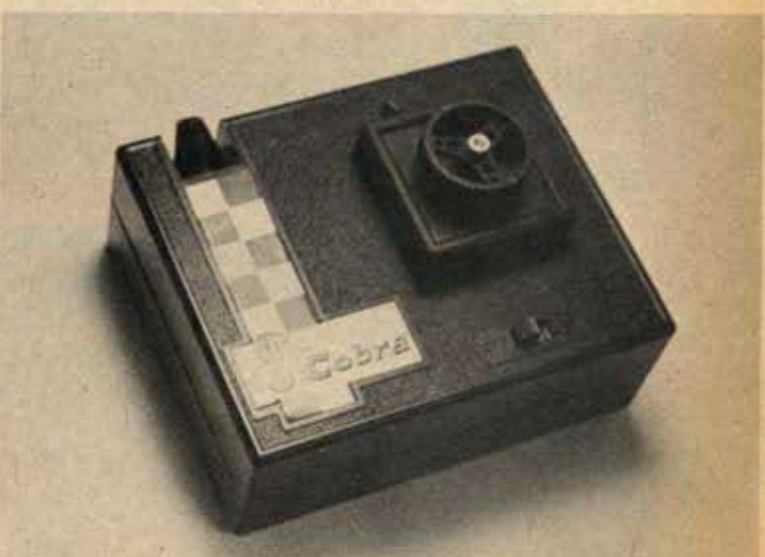
The tank has a double fuel line for acceleration and braking. The lines go into a brass "T" mount.



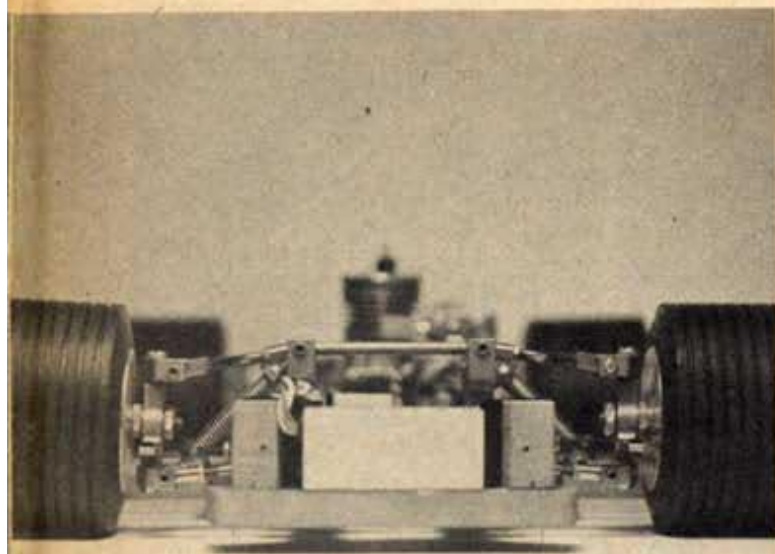
Here is the MRC r/c system, one of the finest in existence. Note the switch between the battery and the receiver.



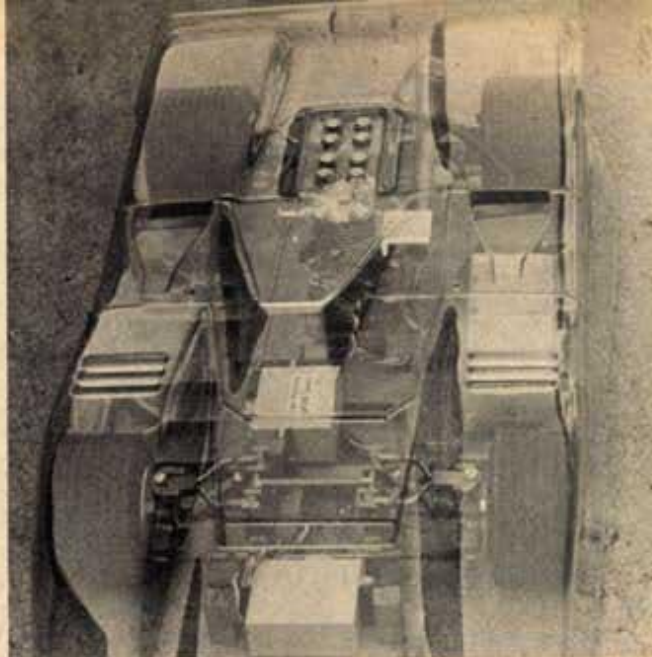
A view of the MRC transmitter. On the left is a torque converter control, on the right the steering and throttle.



Another excellent r/c system which can be used is the Orbit "Cobra" unit. It utilizes a "steering wheel," just as your car does.



A good front view of your suspension.



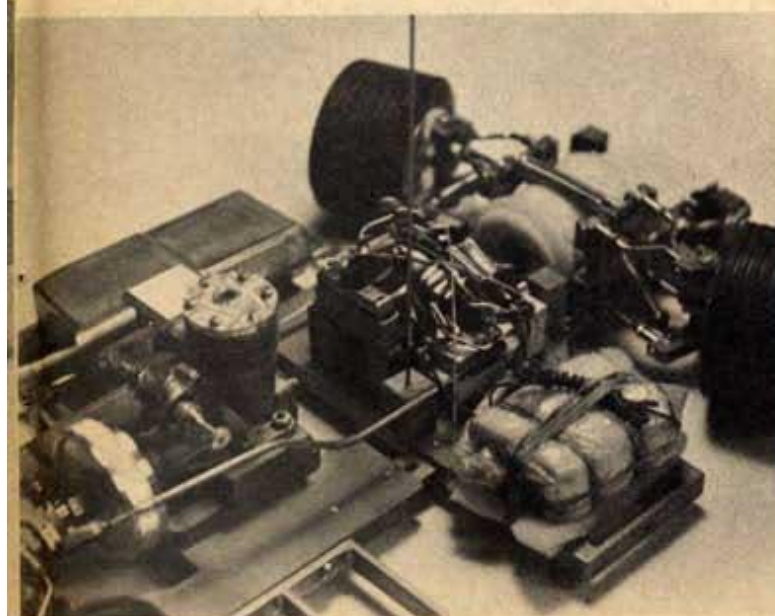
For body mounting, trace the holes with a marking pen.



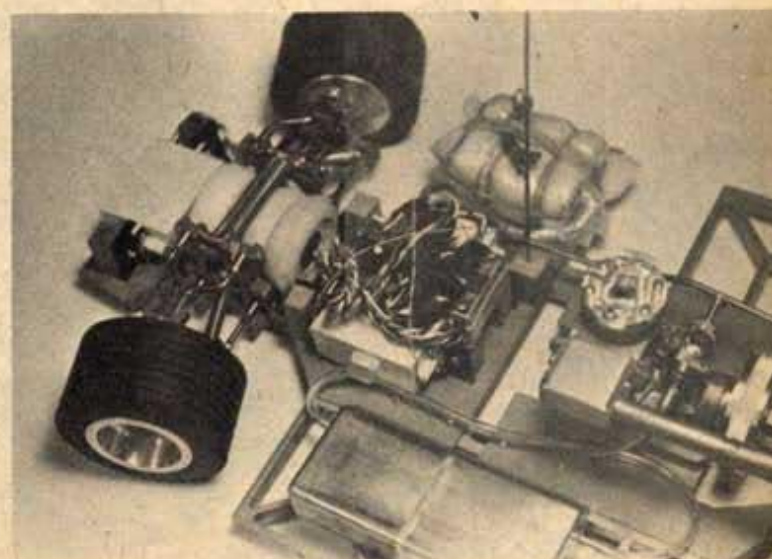
Cut the bulk of the plastic material away in "rough cut" fashion, and finish up with an X-Acto knife, hand file, or Dremel kit.



The electronic gear is mounted.



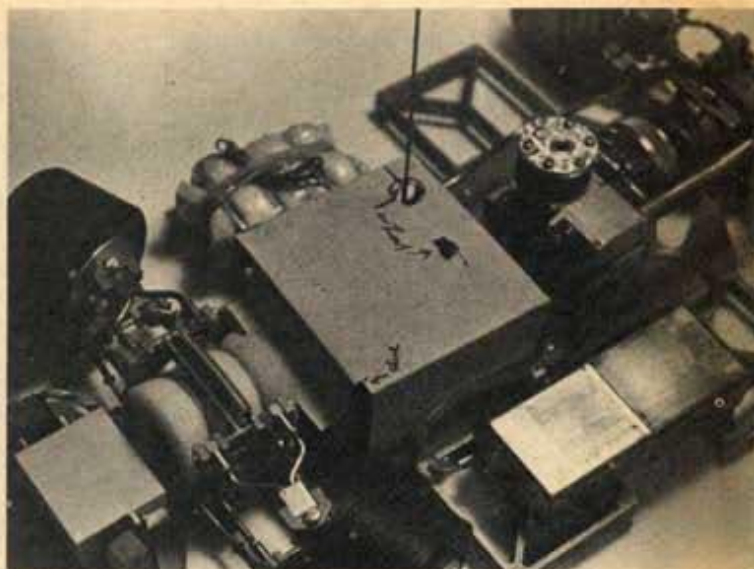
The switch is mounted on hard wood, with the servos.



Mount the antenna (a piano wire in a hard block of wood, with the wire soldered on).



To make an effective servo shield, cut a piece of cardboard as shown.



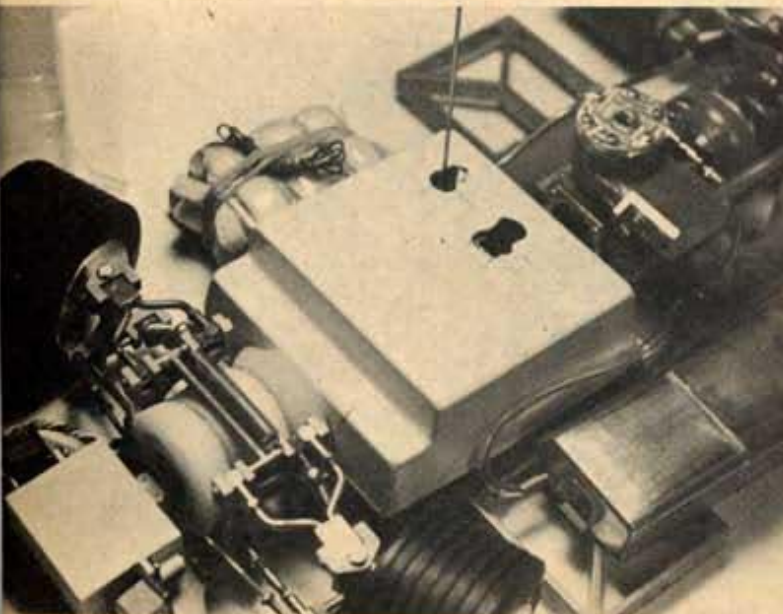
"Eyeball" the fit in the car.



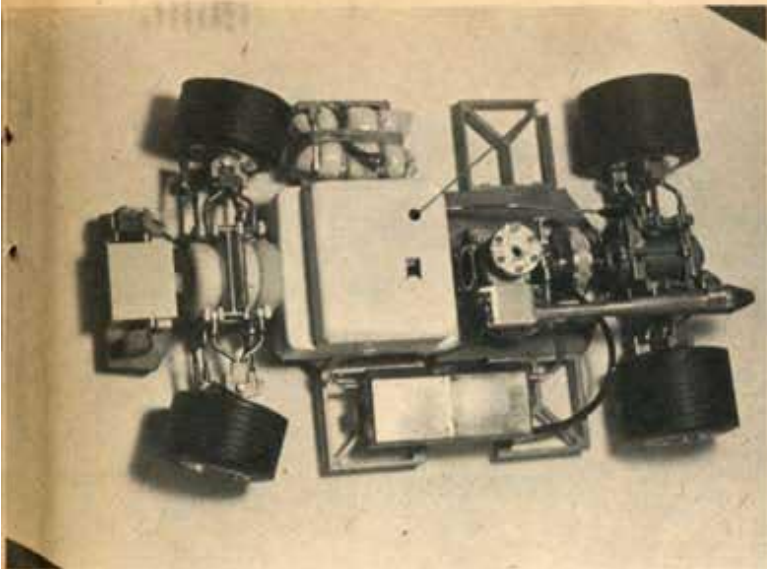
Now do the form in wood and vacuum form several shields.



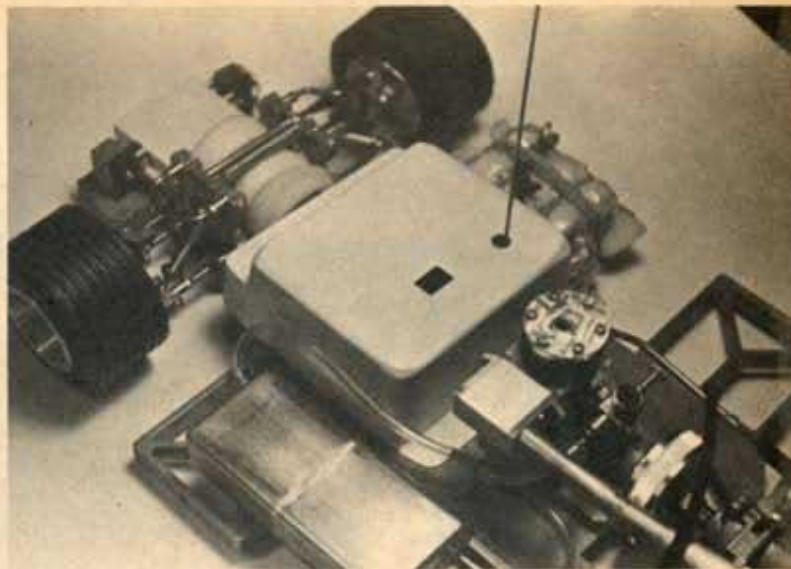
The first one will be used to get a general idea of where the holes must be drilled.



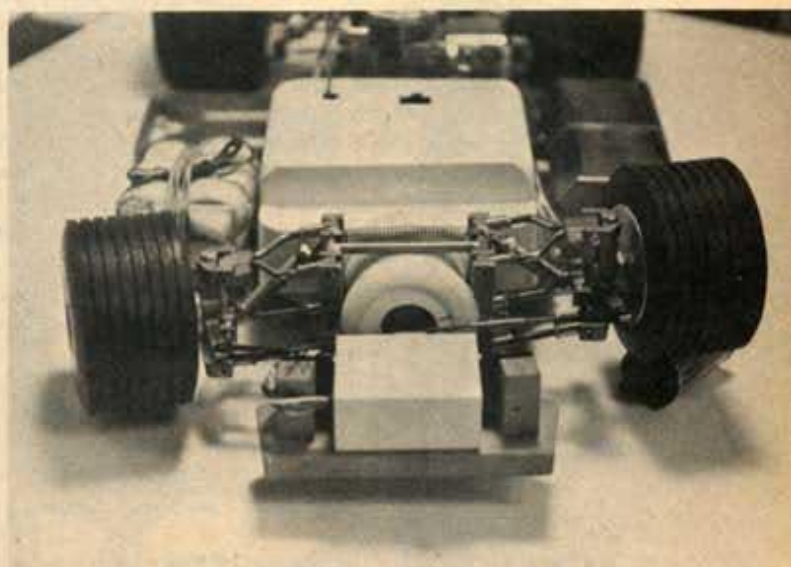
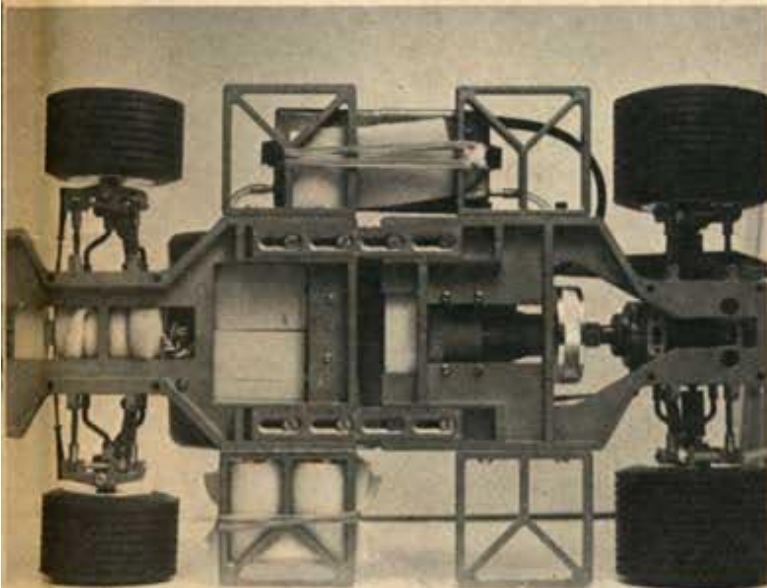
Try it in the car.



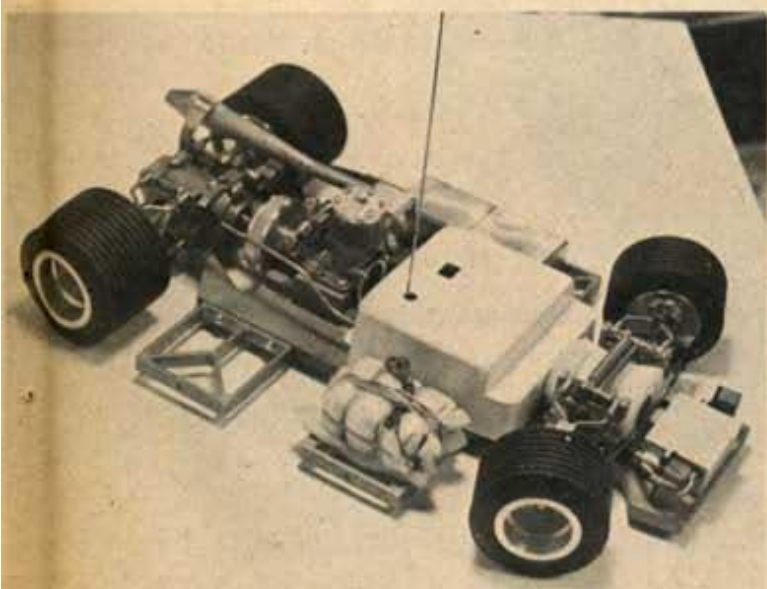
In the second one, drill the holes with precision.



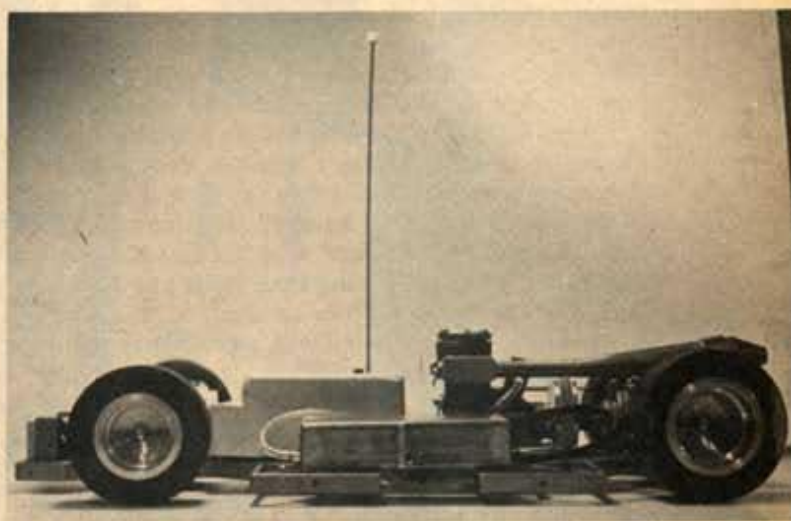
Place the servo shield in position, and secure.



Bottom view of the nearly finished car.



The independent suspension does an excellent job, now that the modifications have been completed.



Place the body in position. The car is now almost ready for racing, but if you can wait until the next issue, we'll show you how to come up with a truly excellent body for this chassis.

A NEW MPC CONTEST!

CONTEST PRIZES

You can ruin your mind working this one out, but the prizes are worth it!

Okay, got your imagination warmed up? Then let's have another contest, this time a real mind ruiner from MPC. All you have to do is exercise your brain cells and your basic customizing skills (which you should have thoroughly mastered after reading MCS all these years!).

Let's go: take any 1/43 scale car (a rash of manufacturers make them, including Corgi, "MATCHBOX," Solido, Lindberg, etc.), and add a 1/20 scale engine of your choice. Customize the car to the limit of your imagination, photograph it from several angles and send us the photos, along with a description of what you've done to the car (the address is listed elsewhere in this article).

Obviously a 1/20 scale (big!) engine in a 1/43 scale (small!) car makes a rather wild looking machine, rather similar, in fact, to MPC's new "Zingers," which they've just released. We're including a few shots of their cars, so you can see what the newest rage is, and to get your imagination in gear.

We've great prizes for the winners of this contest, as you can see. Since it's not expensive, and anyone can enter (except MPC and *Model Car Science* employees and their families — darn it!), all you have to do is grab a few 1/43 scale bodies and hunt up the 1/20 scale mill of your choice (MPC has some great engines in their 1/20 scale line of super-detail cars) and start mating the two together.

Photos are critical. So often we see photographs of cars that are obviously magnificent machines, but the photos are so bad, we can't use them. We've run photography articles in the past. A Polaroid "Swinger" just won't hack it for close-up photography, we're sorry to say, nor will most Instamatics, unless the photographer really knows what he's doing, and has the proper close-up lens.

Perhaps you have a friend with photography equipment who'll do the photography for you. We can't use color, so don't bother sending it in (besides, it's expensive!). All we need is one or two clear, black and white photos (any size), plus a description of your car telling us exactly what you did to it, which parts you used, etc., plus your full name and address, of course! (We'd hate to pick a winner and not have a name and address to go with it!)

The deadline for your entry is January 20, 1971. That may seem like a long way away, but it's really not, so get hustling!

FIRST PLACE

A \$500 U.S. Savings Bond

One of every new MPC model car kits for a full year

A Lionel train set

12 flying model rocket kits

SECOND PLACE

A \$100 U.S. Savings Bond

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One of every new MPC model car kits for a full year

A Lionel train set

12 flying model rocket kits

FOURTH PLACE

A \$25.00 U.S. Savings Bond

15 MPC car kits

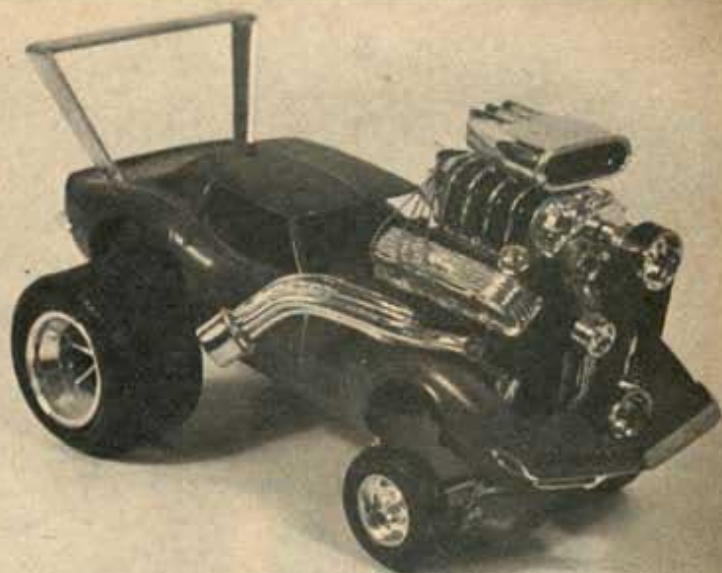
A Lionel train set

12 flying model rocket kits

FIFTH TO TWENTY-FIFTH PLACE

10 MPC scale model kits

A one-year subscription to *Model Car Science*



MPC sent us a few photos of these 1/43 scale bodied-1/20 scale engined creations which they bolted together. Think you can do this well? What! You say you think you can do BETTER! Well then, go to it, WE'LL be the judge!

1. This contest is open to all modelers, the world over, except for employees of Model Products Corporation and *Model Car Science*, and their families.

2. Your entry must use a 1/43 scale body (any manufacturer's) and a 1/20 scale engine (any manufacturer's). These are the only restrictions; you may customize the car in any way, shape or form.

3. Send one or more black and white photos (any size) to us for judging, but DO NOT send the model itself. Include a brief description of the car, what has been done to it, and your complete name and address. Send to: MPC Contest, *Model Car Science*, 131 Barrington Place, Los Angeles, California 90049.

4. Send as many entries as you wish. We will select only the best one for an award, and you may not win more than one prize.

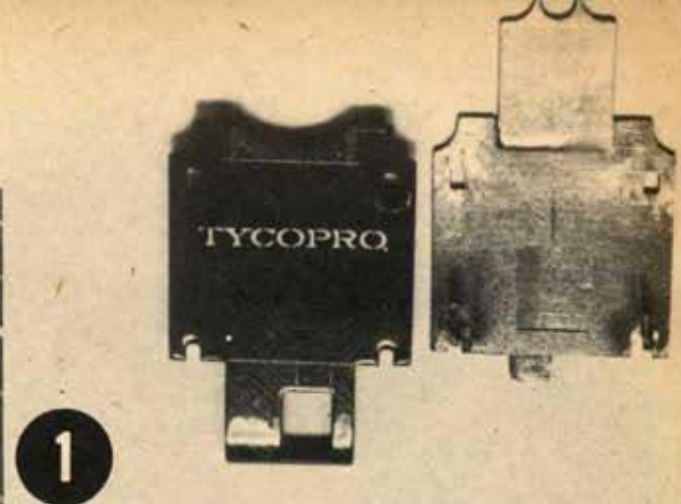
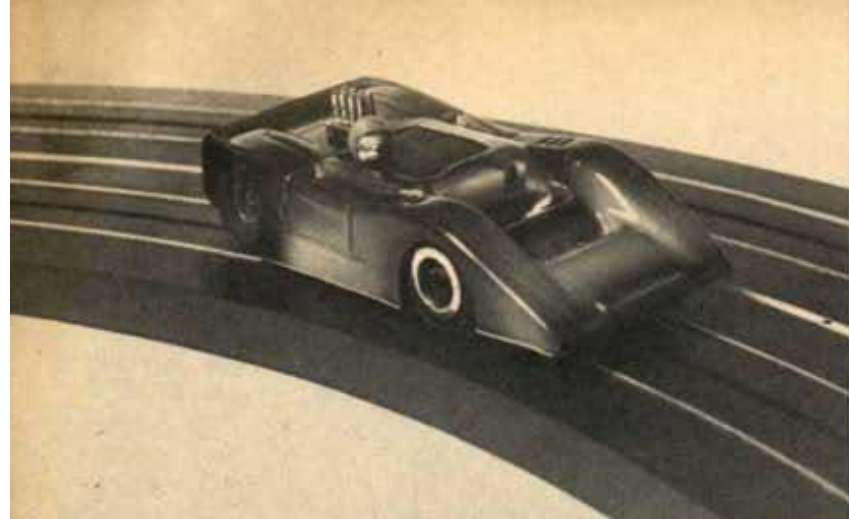
5. Entries will be judged on originality of design, workmanship, paint, and overall finish.

6. This contest is void in states where prohibited by law.

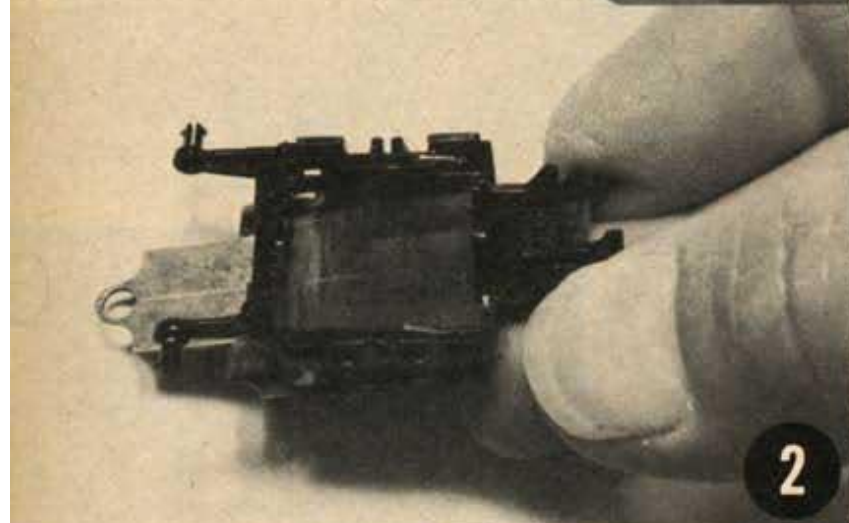
7. No photos can be returned. Your entry will act as your permission to allow *Model Car Science* and Model Products Corporation to use photos of your car for advertising and promotional purposes.

8. The deadline for your entry is midnight, January 20, 1971.

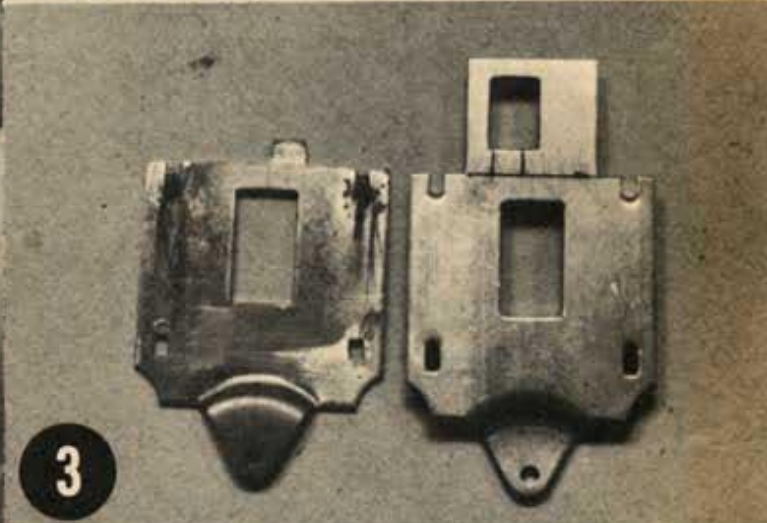
December 1970/47



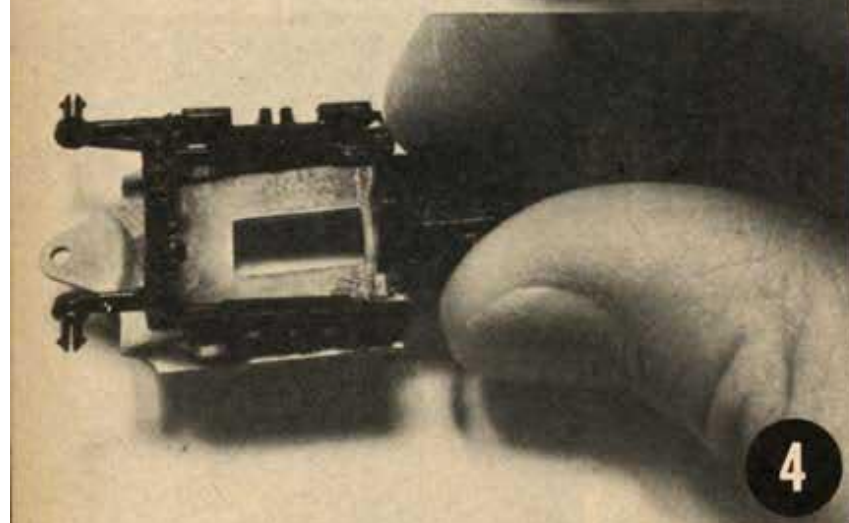
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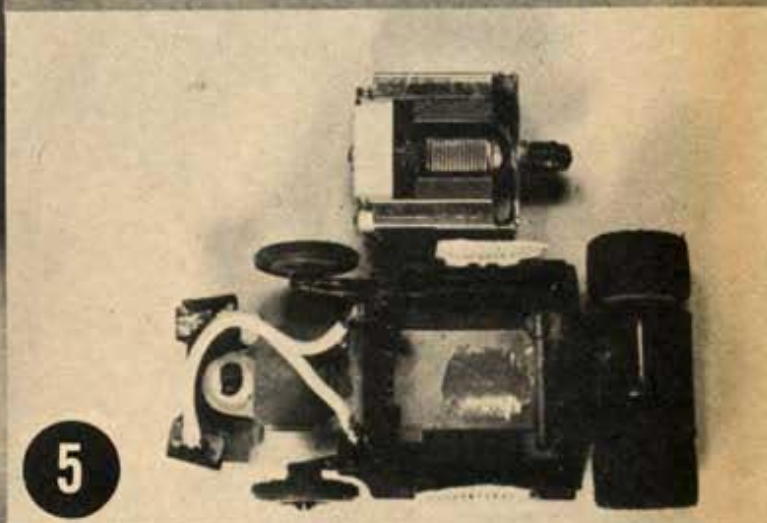
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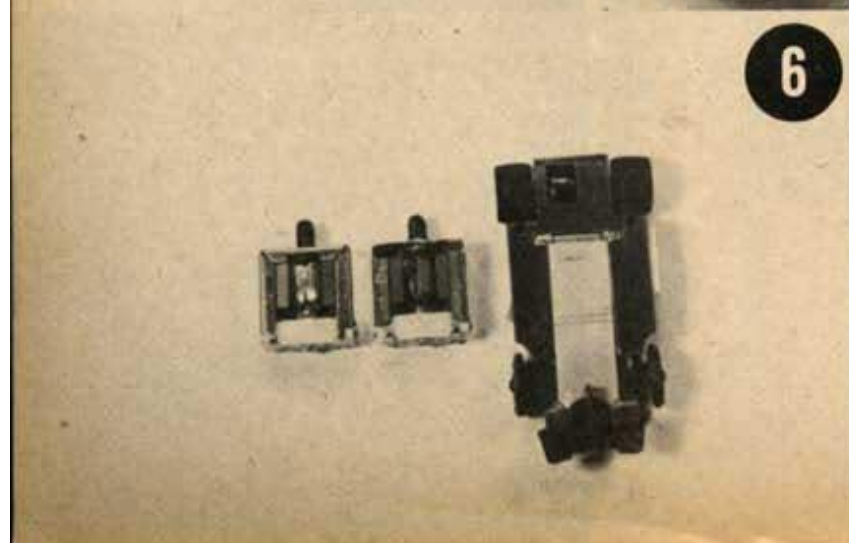
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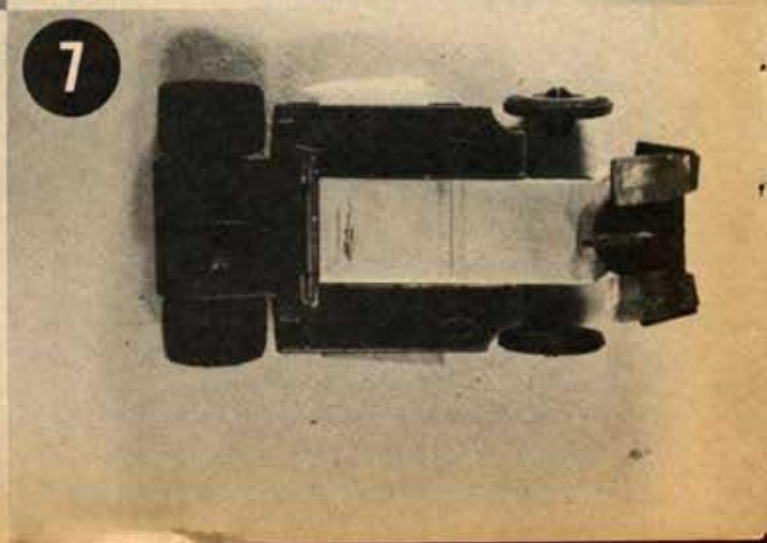
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6



7

Here's how to make that TycoPro handle!

By Tom Malone

TYCO TRICKS

In my column I keep telling you how to make a TycoPro car really handle, but I haven't shown you how I actually accomplished this or that trick. Well for the benefit of those readers who are always writing in that they would like to see pictures of how I make some of these modifications, I took some pictures to illustrate some of these mods.

First of all I took a standard TycoPro pan and cut it off as shown in picture No. 1 and beveled the rear tab so it would act as a down stop. Then I soldered on a bent piece of 1/32nd piano wire to each of the two little rear tabs that normally lock the pan to the plastic chassis. Next I soldered on a piece of .032" by 1/2 inch K&S strip on the front and drilled a 9/64ths hole for the Tyco guide.

Picture No. 2 shows how the modified pan fits in the Tyco chassis. Note that the rear of the plastic chassis has been cut out (next to my index finger). This allows a piece of lead weight to be placed under the axle when needed.

Although it might be difficult to see in picture No. 1 the front locking tabs have been removed with the trusty Dremel tool. As to where you drill the hole for the guide is somewhat optional because if you use a clear plastic body as I did (a Kirby McLaren body available at Auto World) you would place the hole farther forward to get better handling characteristics. The center of the hole on this pan is exactly 1/2 inch forward of the leading edge of the regular pan. Remember to add weight to the brass area just behind the pickup.

Photo No. 3 shows a Mura Pan before and after modification and it is done almost the same way as the Tyco pan. The front locking tabs were removed and "hooks" of bent piano wire were soldered to each rear locking tab. The stub at the rear of the pan is bevelled down at the rear, just as was done on the Tyco pan.

In picture No. 4 I've shown a little different method of attachment than in the previous picture. For this modification I removed all four holding tabs and soldered a "hook" so it looped over the rear of the plastic Tyco chassis.

The technique is to make half of the loop and solder to the pan and then position this to the chassis and bend down the wires to hold the pan in place.

Take your pick of the methods used, for it only proves that there is more than one way to get things done. Again, the old rule of - add lead weight.

Another modification I made was to make a long

droparm for the TycoPro car. First I took the armature out of the motor and cut away the underside rear metal fold-over of the case. Remember this is done on the side opposite from the printed tops of the magnets. If you were to cut away the rear on the same side as your painted magnets, your car would run backward and you'd have to reverse the lead wires to correct this condition. So, O.K., you cut out the metal case as shown in Photo No. 5 with your good old Dremel and then clean out all of the metal fittings, place the endbell in position and slip the empty can back into the original chassis.

Now all you have to do is mark with an X-Acto knife where the rear of the motor fits next to the bellypan. Then remove the empty can and reinstall the armature and pinion. Next take the pan off and cut the center section out a wee bit over 1/2 inch wide. Then cut the little sections into which the ends of the hinge will fit. This is along that line you marked at the rear of the motor.

Now it's a simple job of soldering a piece of 1/16th K&S tubing butt jointed flush against the rear of the drop arm. How long you make this droparm is somewhat optional, again depending on which body is used. For the Kirby McLaren I made the droparm about 1.6 inch long and 1.4 inch from the rear of hinge to the center of the guide hole. I cut off two short pieces of 1/16th tubing for the ends of the hinge and placed a piece of 1/32nd piano wire inside and carefully soldered the hinge in place. Lastly I carved out the center of the droparm so the armature would clear the droparm.

I had to add some Champion lead wire because the original Tyco wire wasn't long enough and finally I added the Velcro material (from the local dime store) to attach the Kirby body.

This body is shaded with black and then a main color was a mixture of competition orange and very dark green to achieve that McLaren caramel color. The carburetor stacks are from a Tyco Chaparral as is "Ugly Mug," the driver. The same old rule of add lead weight applies.

Photo No. 5 shows the underside of the motor and a top view of the completed chassis.

Photo No. 6 shows the top of the motor on the left, the underside of the motor in the center, and the underside of the completed chassis.

Photo No. 7 illustrates how the underside of car is flush and smooth the way it should be when finished.

Now any one of these modifications would make a good one evening building project and all of them at a cost of a dollar or less so how can you go wrong?

I gave each of these cars the acid test for stability, and believe me when you can have all four wheels come off the track on a straightaway and still have each of them keep their guides in the slot, you know they really work! The lead weight and La Ganke sponge tires (No. 510) really makes them handle in the corners.

If the soldering of small parts throws you, try the technique Don Amedo and I use of "painting" the joint to be soldered with a toothpick dipped in a drop of good strong acid flux like Mike Steube markets, and then add just a tiny drop of solder. Using this technique the solder will only go where you "painted" the flux on and not leave a big blob of solder.

So give one of these "mods" a try tonight. You don't have to be a H.O.C.C.I. pro to come up with a decent handling car.



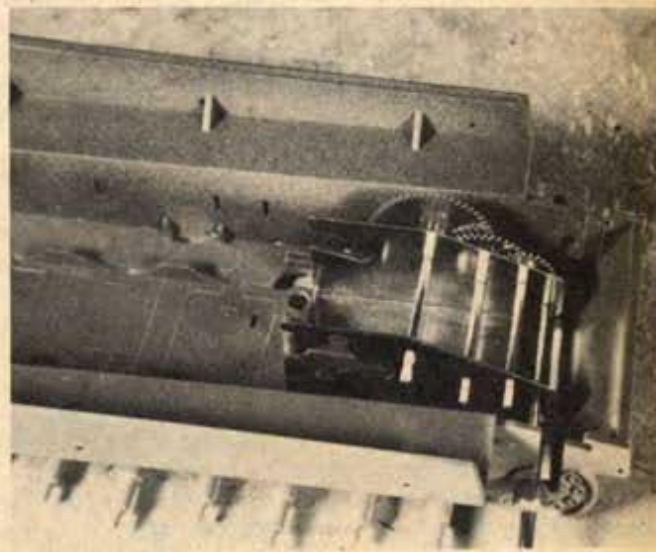
Take two 1/35 scale Tiger I kits by Tamiya, add a Panther kit in the same scale by the same company, and you have the basis for one of the most interesting, though simple, conversions possible in the field of armor. One of the Tiger kits is to be built stock, so you can cut your costs by only getting one of these kits, but that way you won't be able to show what work you really did, and no one will understand what the fuss is all about.

Through the use of a razor saw and assorted other tools of the trade, you will change an early production run Tiger E into a refined and simplified later variant. Further, you transform a Panther A into an early production Panther D, thereby reversing the aging process of the Tiger conversion. One model is made older and the other younger.

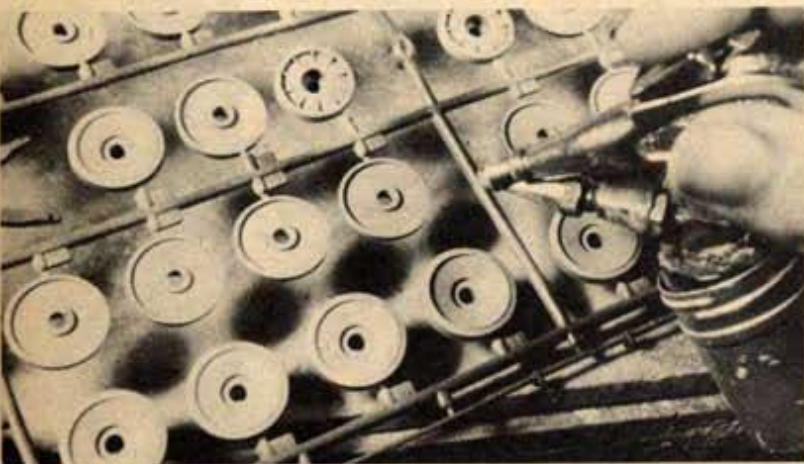
All three of the kits used in this conversion are available from The Squadron Shop, Dept. MCS, 23500 John R., Hazel Park, Michigan 48030, or at your local hobby shop. The 1/35 Tigers list for \$5.00 each, while the 1/35 Panther goes for \$6.00. Squadron Sheet Styrene and Squadron Green Putty, both used in this article, can be ordered at the same time for \$2.00 each.

So to "triple your pleasure," check the assembly sequence carefully, then grab your glue and stick to it.

By Richard Marmo and Paul Studley



The 1/35 Tamiya Panther, shown here, comes motorized — as does the 1/35 Tiger I. This necessitates using the gearbox to obtain one of the axles.



Due to the parts layout, the Tiger I wheels can be sprayed while they are attached to the sprue. One set should be Pactra Mustard, as are the Panther wheels, while the other is Panzer Grey. The Panzer Grey can be obtained with a mix of one part Imrie/Risley Dark Green to about five parts Imrie/Risley Dark Grey.

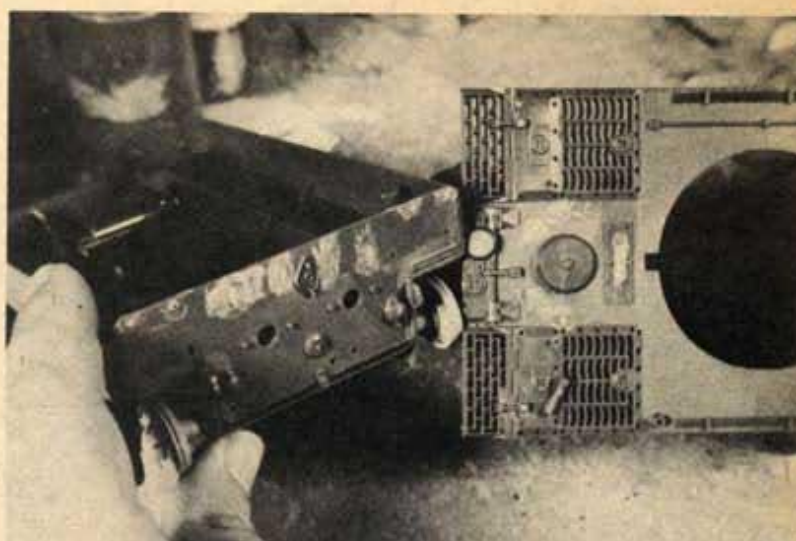
50/Model Car Science



Once the wheels have dried, tires are painted with Floquil's Weathered Black.



Tamiya uses press-on hubs to mount the wheels on both the Panther and Tiger I.



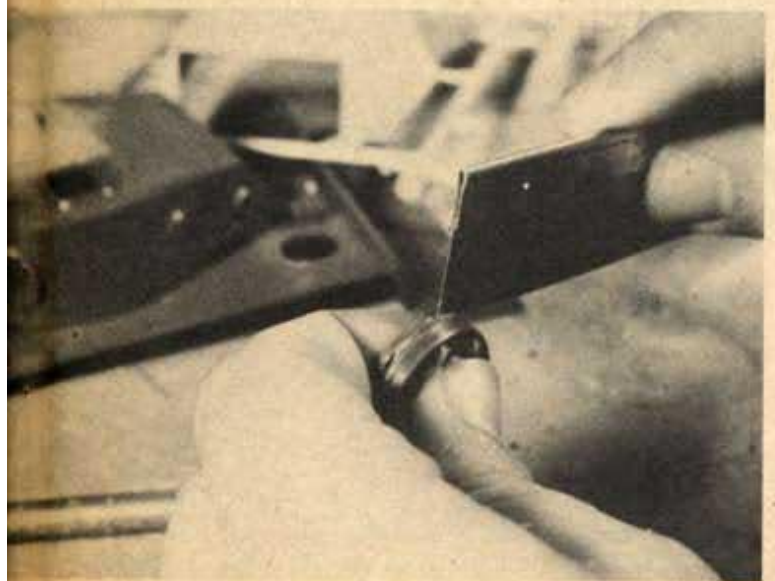
For the late Tiger I, the fifel and muffler covers are deleted and the mounting holes plugged.



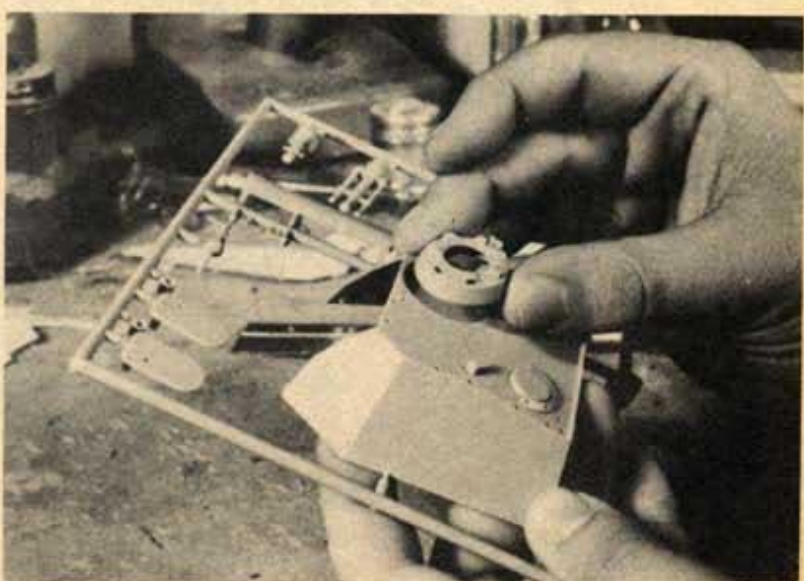
Instead of two headlights, the late Tiger I carried a single one mounted in the center of the front plate. The wire you see was made from a length of soft copper wire.



To begin the turret changeover, cut off the Tiger I cupola flush with the turret top.



Before installing on the Panther, vision slits have to be cut. This is easily done with the tip of an X-Acto saw blade.



Things are a bit easier when it comes to the Panther, since the cupola is molded separately.



Before installation, it does have to be shortened slightly.



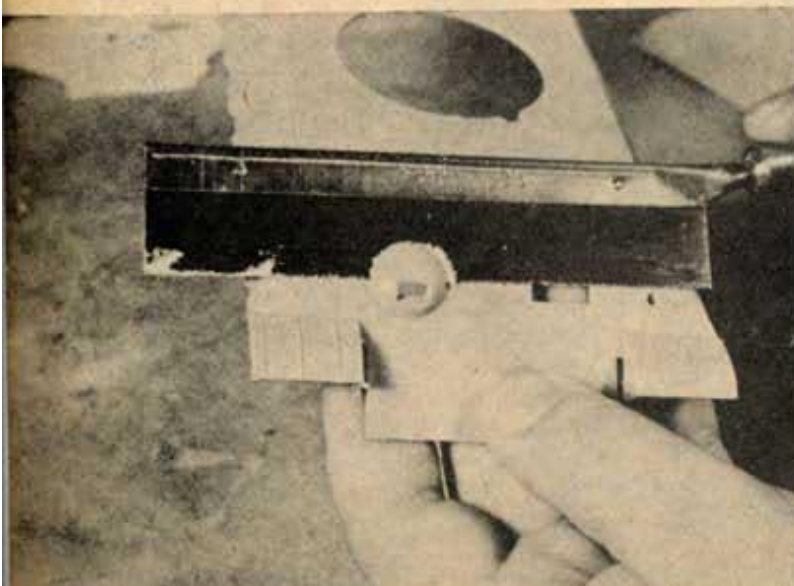
With the two cupolas swapped around, you begin to get an idea of how things will look.



All hatches are cemented in the closed position except for the commander's hatch on the Tiger I. The seams on the top of the Tiger I turret will need to be filled.



The MG 34 machine gun and ring add just the right touch to the Tiger.

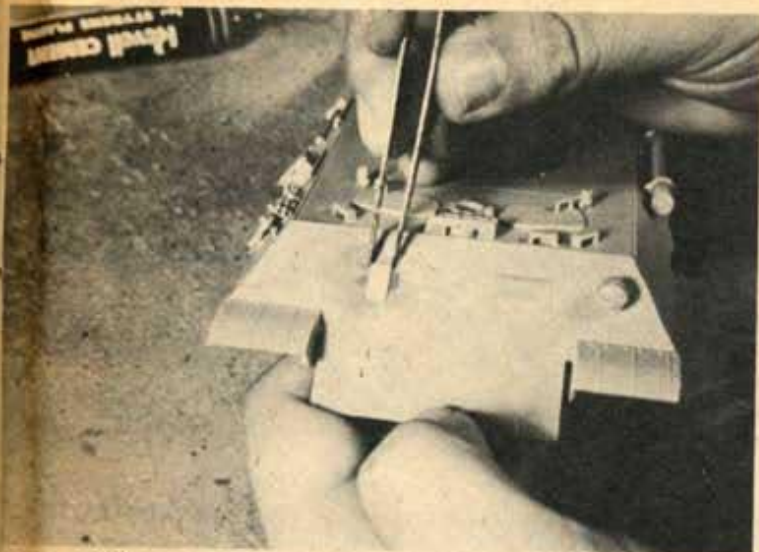


A few modifications are needed on the Panther hull, the first thing being the removal of the M.G. mount.

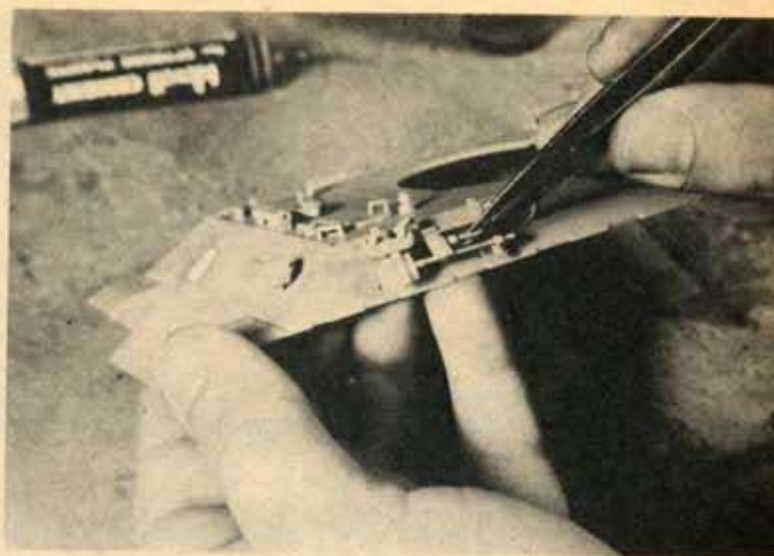
52/Model Car Science



A small piece of Squadron Sheet Styrene is added behind the hole as a backing, and the hole then being filled with Squadron Green Putty.



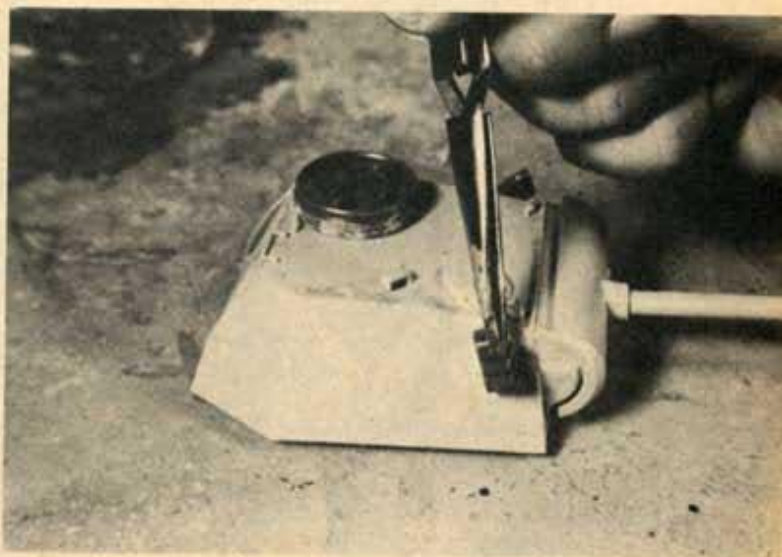
When the area is dry and sanded smooth, a machine-pistol port is cut from sheet styrene and cemented in place.



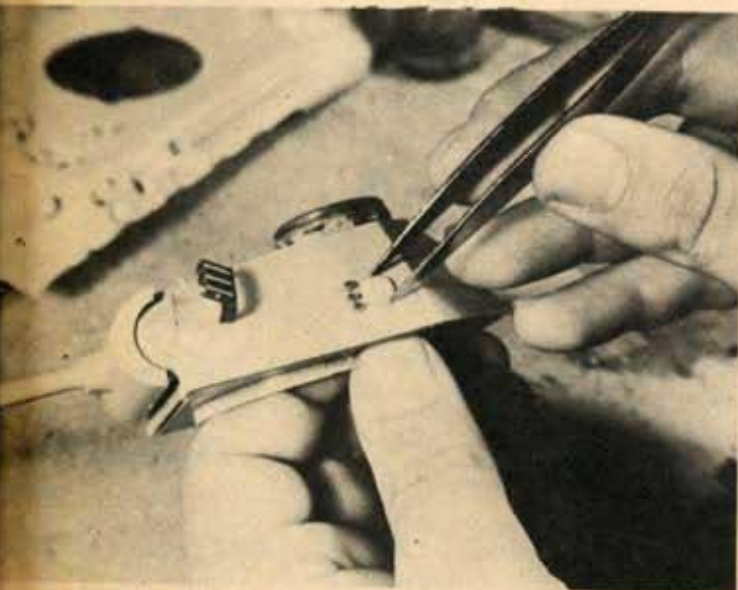
The Panther's tool rack – which is a separate model in itself – is completed and installed at this time.



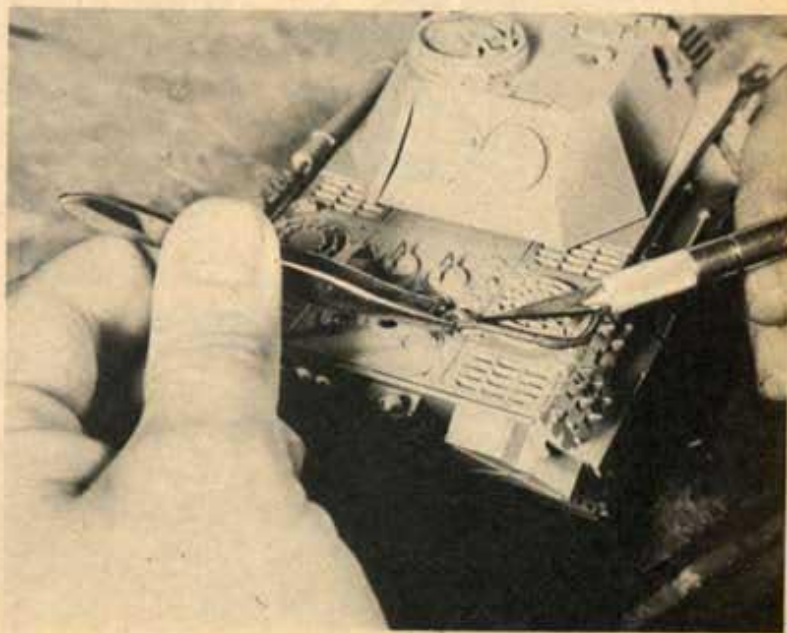
As the Panther nears the painting stage, extra track links are installed on the rear hull sides.



Smoke ejectors from the Tiger kit are drilled out and mounted on the Panther turret.



This extra gun hatch is cut from sheet styrene and positioned with tweezers.



Towing cables can now be installed.



Here you have the converted Panther lacking only a bit of light weathering.



The third member of Triple Your Pleasure is this stock Tiger I. In a winter scheme of Panzer Grey overpainted with white, the easiest way to reproduce the white over-paint is as follows: with a small piece of foam rubber held in cross-action tweezers, dab Poly S white paint in a circular motion over the tank.



This head-on shot of the stock Tiger next to the converted Tiger makes the changes obvious.



Here you can see what a difference deletion of the fender and muffler covers make.



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MEANTM

MAVERICK

Wicked and rugged. And as fierce as they come.

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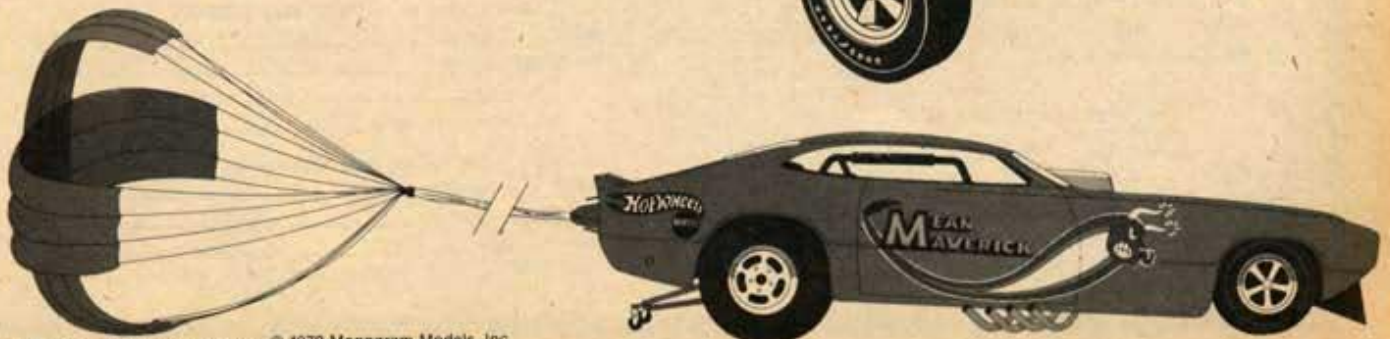
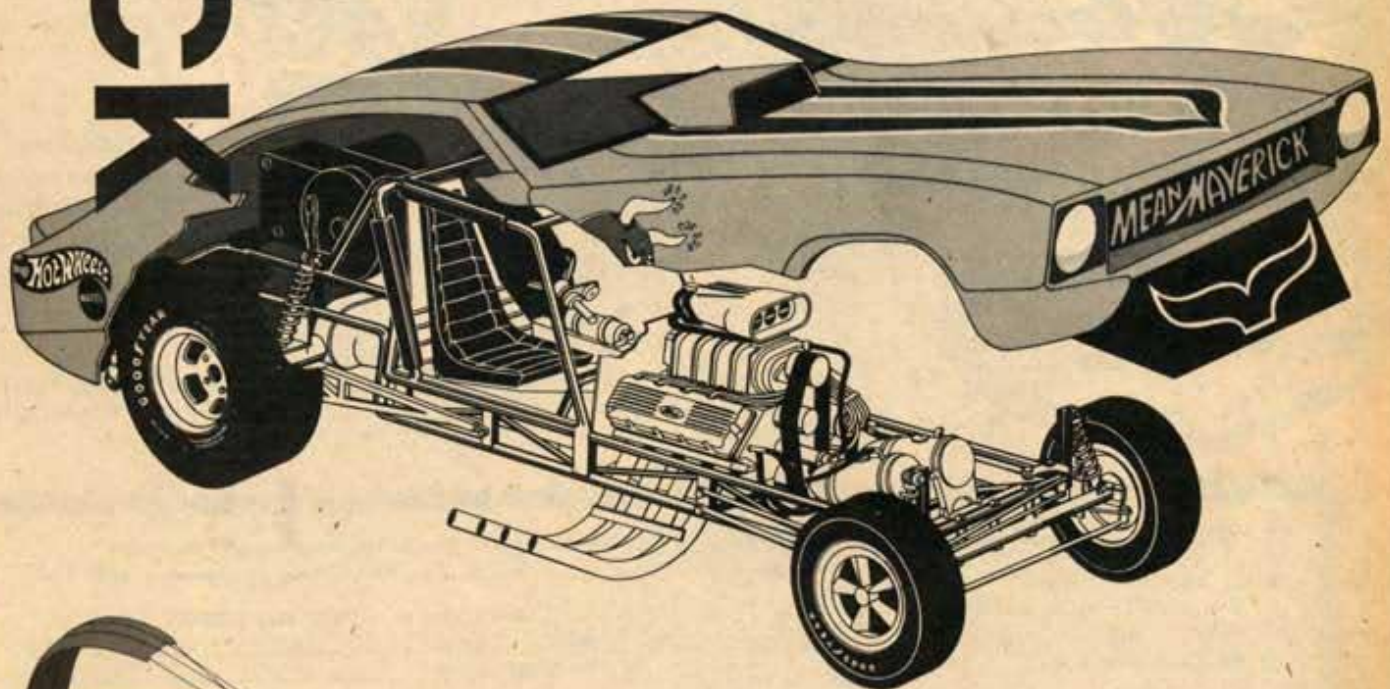
Punch the foot pedal and up comes the battery-powered chopped shell. With a dynamite Ford 427 blown mill whining underneath.

And every nitty-gritty detail cut down to 1/12 scale.

Like the custom-designed tubular chassis. Super fuel and water tanks running up front. Front-end spoiler. And a braking 'chute built either fully opened or still in its pack.

Plus blazing fat slicks on racing mags.

Dig the Funny Car model kit of all times...the MEAN MAVERICK!



SMALL STUFF

Continued from Page 10

straight. I don't think I mentioned that a driver/interior unit is included in the \$.50 price. And the driver is wearing a Bell Star helmet!

Every month now, for about five months straight, I've had something to say about controllers. Well, this month makes it six in a row. If you are the average HO racer, you'd probably like to own a \$12.98 Parma, but you're not rich. And everytime you do get thirteen bucks, you spend most of it on new cars and speed parts. OK, can you dig up \$5.98? If so, you have enough to purchase a new Parma "economy" controller. At first glance it looks identical to the standard Parma, but gone is the heavy duty-type hookup wire and the expensive Parma resistor. Smaller size wire, and a Russkit resistor are found on this new unit. For HO, this is it. It still uses the regular Russkit case, and the metal trigger and frame assembly, and it still has the quality of a Parma product. So get up some dough and go out and buy yourself a REAL controller. It comes in 85, 60, 45 and 25 ohm ratings.

The plastic wrapped motors that Mura makes for the TycoPro are something. Available are both the whole motor for \$2.49, and the armature alone for \$1.49. In either case, the arm is wrapped with plastic to prevent thrown windings. It must work, because the latest TycoPros have this plastic case on the armature as standard equipment. A good trick here, however, is to remove the plastic and epoxy the windings instead. With the plastic gone, you'll be able to shim the magnets in a lot closer for more torque and less heat. But even in factory trim, you'll be able to see the difference in the way your car moves. And at the price, it's definitely a bargain. Also from Mura comes silver plated Tyco wipers. These go for \$.24 a pair. I'll reserve judgement on these as I haven't tried mine yet. But they don't cost much, so you owe it to yourself to try them.

From Aurora, come six new cars in their series of Tuff Ones. They are: Cougar, Camaro, Firebird, AMX, Dino Ferrari, and the Volkswagen Bug. (Surprised to see the AMX as a Tuff One so soon? So am I.) For you Flamethrower fans out there, we now have the Ferrari GTO, the Ford GT, the Chaparral 2F and the Cobra GT. I wish they had a way to turn the lights off. Now how about some new Detroit bodies, Aurora?

I have some more news from Challenger Products, Dept. MA, 866 Chestnut Street, Franklin Square, N.Y. 11010. They report that the angle-



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winder they make has been improved, and that the price is still \$10.00. Now you get the new Mura plastic wrapped rewind, Velcro body mounts (see the No. 1 M.A.R. newspaper), and a spring on the drop arm. The folks at Challenger also have a TycoPro improvement program. If you send your car and \$2.50, they will trick it up with a Mura brass pan that has a long swing arm in it. This long swing arm is what I run on mine, and it handles like a completely different car. Along with the angiewinder and the modified TycoPro, they also make rewinds for Aurora cars.

What? You say what does "MAR" stand for in the above paragraph! Good grief, it stands for "Miniature Auto Racing," the new monthly slot racing newspaper that is now about three issues old. Yeah, I'm a writer for it, but that's not why I'm ballyhooing it. It's informative, up to date and packed with more information than anyone has a right to expect for less than .35¢ a copy. It's a big beast, too (over 20 big newspaper-size pages) and there's information on all three scales — H.O., 1/32 and 1/24. You can only get it by subscription. Send \$1.00 (for three months); \$2.00 (for six months) or \$4.00 (for a full year) to Pacific Publishing Group, P.O. Box 1821, Thousand Oaks, California 91360. Oh yes, if you live in a foreign country, subscriptions are available only by the year (\$5.00). I recommend it highly.

Track of the Month belongs to Ray Pope, 2538 Lancraft Road, Bon Air, Va. 23235. Ray reports that the track took a little under two months to build. It is equipped with one power pack per lane and electric lap counters. The track has three lanes, and was hand routed. Anybody in the Bon Air area is invited to contact Ray as he is looking for people to join his club. Nice job, Ray, your MCS subscription will be on its way soon.

Rumors Dep't. Aurora to make '70 Hemi Cuda with rather large rear slicks . . . Dave Bloom, famed painter of 1/24th slot car bodies, to be doing HO shells soon . . . Somebody is working on set-screw gears . . . Cobra having trouble making optional gears for the 'Mite . . . Kirby to produce Mercedes C-111 . . . Dynamic to produce HO car . . . Atlas "supercar" merely a \$1.50 remake of a previous car.

If anybody out there has just completed an HO supertrack, please send pictures and a short description of the track to me. I'm running low on "Track of the Month" entries. The winner each month gets a one year subscription to MCS. Send to: Bill Von Staden, 77 Sherman Ave., Jersey City, N.J. 07307.

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